CHRONICLES

OF

THE BUILDERS

OF THE

COMMONWEALTH

Historical Character Study

BY

HUBERT HOWE BANCROFT

VOLUME III

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LIST OF STEEL-PLATE PORTRAITS.

VOLUME III.

	PAGE
Martin Murphy	Frontispiece.
Martin Murphy, Jr.	15
Richard Gird	77
Daniel Freeman	125
Augustus T. Hatch	141
Joseph S. Cone	176
John Bensley	206
Moses J. Church	217
Elias J. Baldwin	331
Henry Miller	372
Augustus L. Chandler	387
James B. Lankershim	404
James Adams	415
Dean J. Locke	425
John T. Strentzel	435
John D. Stephens	445
John B. Rohrer	458
Jefferson G. James	466
Samuel Jackson	476
Neuschwander D. Julien	483
William F. Downing	490
Edward B. Perrin	496
Richard B. Knapp	579
Cyrus H. McCormick	601

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CONTENTS OF THIS VOLUME.

CHAPTER I.

AGRICULTURE—GENERAL REVIEW. PAGE

Handmaid of Mining—Aboriginal Agriculturalists—Gods of the Grain-field—Enforced Labor—Coöperation—Irrigation—Beneficent Legislation—Tenure of Land—Divers Monopolies—Climate—Social Conditions—Race Characteristics—Agricultural Colonies............. 1

CHAPTER II.

THE MURPHYS.

Ancestry—Move to Canada, and thence to Missouri—Overland to California—Incidents of the Journey—The First Wagons to Cross the Sierra—Political Issues—The Murphys Join Micheltorena—Life at San José—Grants and Squatters—Close of Career................. 15

CHAPTER III.

AGRICULTURE—MEXICO AND CENTRAL AMERICA.

Aztec Farmers—Chinampa or Floating Gardens—Chief Products of the Nahuas—Aboriginal Implements—Corn and Religion—The Maguey—Pulque—Origin of Agriculture—The Gods in Council—Maya Civilization—Indigenous Products—Corn, Cacao, Beans, Pepper, and Cotton—Aboriginal Land Tenure—Plantations of the Conquerors—Introduction of Sugar Cane and Wheat—Plantains, Silk, Olives, Grapes, and Tobacco—Coffee, Vanilla, Cochineal, Indigo, and Jalap—Livestock—Climatic Zones—Central American Products........ 62

CHAPTER IV.

LIFE OF RICHARD GIRD.

Southern California—Genealogy and Parentage—Family Homestead—Early Training and Education—Mining Experience in California and Chili—Railroad Building in Chili—Assaying and Prospecting in Arizona—Indian Warfare—Manufacturing—Discovery of the Tombstone District—The Tombstone Mines—The Chino Estate—Dairy—The Chino Sugar-mills—Mrs Gird—Physique and Characteristics—Opinions—Summary.. 77

CHAPTER V.

LIFE OF DANIEL FREEMAN.

PAGE

Talent and Opportunity as Agencies of Success—Ancestry—Early Surroundings— Education—Practice of Law—Marriage—Enterprise at Port Burwell—Experimental Farming in California—Death of Mrs Freeman—Characteristics 125

CHAPTER VI.

LIFE OF AUGUSTUS T. HATCH.

Horticulture in California—Incidents of Youthful Struggle—Labor and Confidence in Self—Varied and Striking Experiences—Move to California—Marriage—A Napoleon in the Acquisition of Acres—Original Business Methods—Scientific Horticulture—Evolution of the Great Fruit Industry—What Faith and Work can Do........... 141

CHAPTER VII.

LIFE OF JOSEPH S. CONE.

Lineage and Education—Removal to California—Mining and Trading—Ranch in Tehama County—Grain, Sheep, and Fruit Raising—Management of Estate—Wife and Children—Banking—Politics and Religion—Railroad Commissioner—Supplemental Report—Character and Appearance—Public Benefaction Contemplated........... 176

CHAPTER VIII.

LIFE OF JOHN BENSLEY.

Development of Manufactures—Ancestry and Education of John Bensley —Experiences in Mexico—Comes to California—Merchandising, Steamboating, Gas, Water, Electric Lights, Rolling Mills, Irrigation, Oil, and Lead Works, Dredging and Coal Interests—An Active and Useful Career......... 206

CHAPTER IX.

LIFE OF MOSES J. CHURCH.

Genealogy—Family Characteristics—Early Traits—Equipment for Life in California—Struggle against a Dual Force—Brutishness in the Field and Crookedness in Litigation—A Triumph for Civilization Broad and Deep—Peaceful Conquests—Moral and Intellectual Force —The Father of Irrigation—Important Agency in the Country's Growth—A Life of Benefactions—Portraiture of a Prominent Character.. 217

CHAPTER X.

AGRICULTURE—CALIFORNIA.

PAGE

The Three Epochs of California Agriculture—The Industry under Mission Rule—Gold-diggers as Farmers—Improvement of Breeds—The Dairy—Transition from Grazing to Grain—Honey—Exhaustion of Soil—Machinery—Climate and Conditions—Canals and Ditches—Water Rights—Rainfalls—Cotton—Silk—Tobacco—Sugar—Tea—Transition from Grain to Fruit—The Age of Horticulture, of the Orange, the Olive, and the Vine.............................. 296

CHAPTER XI.

LIFE OF ELIAS J. BALDWIN.

California Enterprise—Genealogy—Birth—Early Career—Journey across the Plains—First Ventures in San Francisco—Sagacity and Enterprise—Real Estate and Stock Operations—The Bank of California—The Baldwin Hotel and Theatre—The Santa Anita Estate—Summer Resort at Lake Tahoe—Horse-breeding—The Bear Valley Rancho—A Man of Many Interests—Appearance, Characteristics, and Opinions... 331

CHAPTER XII.

LIFE OF HENRY MILLER.

Ancestry and Parentage—Early Career—Removed to California—Start in Business—Miller & Lux—Ranchos—The San Joaquin and Kings River Canal—Live-stock Interests—Political Views—Wife and Family—Physique and Characteristics—Summary of Career....... 372

CHAPTER XIII.

LIFE OF AUGUSTUS L. CHANDLER.

The Study of Nation-making—Chandler's Ancestry and Early Life—Personal Appearance and Principles—His California Experiences—Family Matters—His Political Career—The Mining Débris Question—Public and Private Benefactions—His Last Days............... 387

CHAPTER XIV.

LIFE OF JAMES B. LANKERSHIM.

Resources of California—Isaac Lankershim—Birth and Education—El Cajon and San Fernando Ranchos—Improved Farming Methods—Flouring Mill—The Lankershim Land and Water Company—Growth of Los Angeles—Wife and Family—Visit to Japan—Appearance and Characteristics... 404

CHAPTER XV.

LIFE OF JAMES ADAMS.

PAGE

Ancestry and Early Environment—Manful Struggles against Adversity—Vicissitudes of Pioneer Industry—Success Won by Steadfast Labor—Respectable and Useful Career as Private Citizen and in Legislative and Executive Office—An Exemplary Life.................. 415

CHAPTER XVI.

LIFE OF DEAN J. LOCKE.

Ancestry and Birth—Luther Locke—Education—Journey to California—Professional Services—Elmer Hall Locke—Home-building on the Mokelumne—Marriage—The Town of Lockeford—Character and Appearance—Decease—Summary of Career—Sons and Daughters.. 425

CHAPTER XVII.

LIFE OF JOHN T. STRENTZEL.

Fruit-growing in California—The Strentzel Family—Early Life and Education of John Theophil Strentzel—Marriage—Coming to the Pacific Coast—Pioneer Experiences—Trials and Vicissitudes—Home near Martinez—Politics and Religion—Traits and Characteristics.. 435

CHAPTER XVIII.

LIVES OF JOHN D. STEPHENS—JOHN B. ROHRER—JEFFERSON G. JAMES—SAMUEL JACKSON—N. D. JULIEN—W. F. DOWNING.

John D. Stephens in the Valley of California—Cattle-stealing and Land-grabbing—John B. Rohrer as Miner and Stock-raiser—Jefferson G. James as Pioneer, Stock-raiser, and Prominent Citizen—Samuel Jackson as Miner and Stock-raiser—N. D. Julien as Merchant and Farmer—W. F. Downing as Dairyman and Citizen................ 445

CHAPTER XIX.

LIFE OF EDWARD B. PERRIN.

Family History—Character of Parents—Education—Man of Letters and Affairs—Remarkable Real Estate Career—Pronounced Agency in Horticulture—Irrigation—Powerful Factor in Development—Energetic and Useful Life—A Striking Character..................... 496

CHAPTER XX.

AGRICULTURE—OREGON AND WASHINGTON.

Farms of the Hudson's Bay Company—French Canadians in the Valley Willamette—Efforts of the Missionaries—Effect of California Gold on Oregon Farming—Great Floods—Gold in Oregon—Abundance of Markets—Cattle-raising—The Willamette Cattle Company Bring Stock from California—Early Farming in Washington Territory—Puget Sound Agricultural Company—American Settlers North of the Columbia—Stock-raising—Fairs and Societies—Eastern Washington—Sheep-raising.. 564

CHAPTER XXI.

LIFE OF RICHARD B. KNAPP. PAGE

He Takes his First Lessons on the Farm—The Foundation Laid in Portland—Patience to Labor and to Wait—Friend and Co-worker with the Farmers—The House of Knapp, Burrell, and Company as a Factor in Development—His Place in It—Character.................. 579

CHAPTER XXII.

AGRICULTURE—NEVADA AND UTAH.

Subordination of Farming to Mining—A So-called Desert—Climate—Rainfall—Configuration, Water-courses, and Sinks—Irrigation—Artesian Wells—Numerous Fertile Valleys—Soil and Products—Markets—Railroad Discrimination and Monopoly—Stock-raising—Bunch-grass—Cattle, Horses, Hogs, Angora Goats, Camels, and Ostriches—Agricultural Communities in Utah—Irrigation—Crickets and Grasshoppers—Cereals and Fruits—Cotton, Flax, and Silk—Markets and Monopoly—Stock-raising and Dairy-farming......... 590

CHAPTER XXIII.

LIFE OF CYRUS H. M'CORMICK.

Embodiment of the Industrial Idea of the Century—Building of a Character—Inventive Genius—Agricultural Machinery—The McCormick Reaper.. 601

CHAPTER XXIV.

AGRICULTURE—IDAHO, MONTANA, AND WYOMING.

Idaho a Fine Agricultural as Well as Mineral Country—Primeval Pastures and Natural Wealth—Prolific Soils and Rich Grasses—Irrigation—Horticulture, Pomology, and Viticulture—Cattle-raising—Natural Grasses and Native Animals of Montana—Stock-raising—Transportation and Markets—Effect of Railways and Gold-mining—Grasshoppers—Rodeos—Horses and Sheep—The Soil of Wyoming—Pests—Irrigation—Cereals—Grazing Capabilities—Stock-raisers and Stock—Climate—Cattle Companies—Stock-growers' Association.. 617

CHAPTER XXV.

AGRICULTURE—COLORADO, ARIZONA, AND NEW MEXICO.

The Continental Dividing Range—Parks of Paradise—Soil and Products—Forests—Absence of Moisture—Droughts and Floods—System of Irrigation—Land and Water Associations—Canals and Ditches—History of Agriculture—Colonies—Horticulture—Stock-raising—Grasses—Wool-growing—Stock Associations—Monopoly—Pueblos of New Mexico—Influx of Mexicans and Mormons—Soil and Products—Stock-raising in Arizona—Climate—Mexican Land Grants—Subdivision and Irrigation—Land Titles........................ 633

CHRONICLES OF THE BUILDERS.

CHAPTER I.

AGRICULTURE—GENERAL REVIEW.

Handmaid of Mining—Aboriginal Agriculturalists—Gods of the Grain-Field—Enforced Labor—Coöperation—Irrigation—Beneficent Legislation—Tenure of Land—Divers Monopolies—Climate—Social Conditions—Race Characteristics—Agricultural Colonies.

Agriculture on the Pacific coast was the handmaid of mining, when the former was but little developed, but presently she became mistress of all. While yet subordinate, she was often more absorbed in the affairs of the mistress than in her own. She lived to look at the gold as it came glittering from the Pactolian streams; she thought the ground too dry to grow anything, profitably; nevertheless, those sons of the gods who delved among the boulders must be fed, and by and bye this feeding became paramount to all.

In Mexico and Central America the Spaniards appeared primarily upon the scene in search of gold and other treasures; and to this end they extended conquest northward, opening the rich silver deposits for which Zacatecas, San Potosí, and other provinces became famous. These in their turn gave rise to farming and other industries, and the Castilian settled here as he had southward as an encomendero to employ serfs for tillage, and to spread the cultivation of the new seeds and plants introduced from the Spanish peninsula. In California agriculture existed prior to the gold discovery; but gold was the primary incentive to that congregation of the nations which finally turned a wilderness into a garden.

Elsewhere in Arizona, Nevada, Colorado, Montana, Idaho and British Columbia, mining was the pioneer effort, which laid a foundation for all others. Wyoming, Oregon, Utah, and New Mexico received great aid from the same source, partly within, partly from without their borders, although here husbandry ranks as the older industry.

Another feature in agricultural pursuits on the coast is their descent to a certain degree from autochthonic origin, whose influence still lingers in several minor ramifications. They were practised in New Mexico and other latitudes, but attained high development only among the Nahuas and Mayas, as attested by the variety of cultures, the celebrated botonical gardens sustained by princes, and the floating gardens of the Aztecs. Their earliest traditions refer to flourishing fields under divine patronage, for these peoples, like the Greeks, had their Ceres and Pomona, and their special maize god. The circle of their deities embraces also culture-heroes, to whom are ascribed the introduction of plants. As in the Levantine myths, here are identified and personified different phases and reproductive processes, as the visit of the gods to mother earth in Ledaic showers. Connected with them is the invocation of good spirits and propitiatory appeals to evil genii, who might affect heat, moisture, and other factors, attendant rites involving erotic ceremonies at seeding time.

A religious atmosphere surrounded also the beginning of the industry in modern times. Missionaries started it in California and the countries eastward, and trained therein their flocks of neophytes, but with the chief aim, as they professed, of sustaining and propagating the gospel. In Oregon, likewise, protestant missionaries led the way in agricultural development, as a basis for territorial and ecclesiastic supremacy.

In New Mexico and Arizona the insufficiency of game and the hostility of the savages of the plains drove the pueblos, or town-dwelling aborigines, to tillage, and their consequent restriction to vegetable food tended to make them gentle and peaceful. Toward the north the abundance of game impelled the natives to a nomad life, with its alternate excitement and indolent repose, its brief though fierce campaigns, and periods of restless tranquillity, its gluttonous feasts and torpid siestas—extremes and excesses, in short, of an unsustained energy which abhorred the rules and restraints of civilization for the enjoyment of absolute liberty. In Alaska a less hospitable soil compelled the inhabitants to look to the sea for their supply of food.

Most of the native Americans were in time initiated into the mysteries of cultivating the soil, by the padres, by settlers impressed as laborers, or by a paternal government, which out of regard for its nearer and dearer children compelled these wild men to learn how to support themselves by labor. It was a necessity, but the effect was bad, resulting in some cases fatally to both, particularly to the Spaniards. As in the southern United States, where colored labor was regarded as degrading, and the laborer hesitated to place himself on the lower level, particularly when the inferior race could be hired to do the work, so it was with regard to the Spaniards and Indians. The Indian, however, did not become a competitor in labor to any considerable extent, and herein white men found consolation for the elevation of the aboriginal lords of the soil.

The achievements of agriculture are strikingly displayed in the building up of such commonwealths as Utah, and the transformation of a desert into flourishing settlements, under the direction of strong, practical leaders. Associated with mining it has performed similar wonders for several equally unpromising states. Even the San Joaquin valley in California was shunned until gradual experiments proved it to be one of the great wheat raising sections of the coast.

The most powerful auxiliary to this end was the irrigation practised since time immemorial on both continents. Its value is demonstrated not alone in the reclamation of the great inland basin areas, but in the direct benefit to every participant elsewhere of assured crops, augmented yield, the economic adjustment of work, canals for navigation and traffic, and a bond uniting a community in harmonious coöperation. It will diminish the speculative farming fostered in California by the gambling spirit of mining, by the high cost of labor, and by natural facilities for field operations. It will further tend to subdivide the land into small holdings, under the increase of values and consequently of taxation, and the sufficiency of such subdivisions for families, whose every member may be profitably employed upon them.

The suppression of monopoly in land gives rise, however, to another in irrigation. In California, Colorado, and Wyoming are corporations with canals of seventy or eighty miles in length, not counting branch ditches, which control areas equivalent to counties, and hold at their mercy the fortunes of the communities settled upon them. The concession of such power to a few seems indispensable at times, owing to the cost of the undertaking, and to the difficulty of uniting the occupants of districts to join in such enterprises. Yet this could be accomplished with proper initiatory steps by the government, which should, moreover, assume the responsibility of preliminary surveys and the general supervision, in order to prevent injurious discrimination against individuals or adjacent sections. Or it may suffice to frame strict regulations, with a view to prevent unjust exactions and enforce subservience to public requirements.

Irrigation is in its infancy, and has not yet established the fundamental principles for its existence. The laws on riparian rights, framed for a well-watered and non-irrigating country like England, cannot be indiscriminately applied to an arid region wholly dependent upon such a system. The enactment which reserves for general use the navigable streams, because the public need them, is a precedent for considering the public want also with regard to other water-courses. The government is taking steps toward a remedy by granting appropriations for sinking artesian wells. In Colorado a wise administration is securing improvements for public lands by obliging buyers of alternate sections to render their irrigation projects available for intermediate or adjoining tracts.

The government has extended a fostering care toward this fundamental industry, although much more might be done. It has assisted to reclaim deserts with appropriations and grants for artesian wells and irrigation; it has facilitated the drainage of swamp lands; it has watched the changing industrial conditions, and lightened or increased burdens according to the capacity for bearing them, as in taxation, and in transferring the obligation of erecting fences from farmers to stock-raisers, when the former had become of greater importance to the state; it has extended protection to struggling frontier communities; it has encouraged special industries, as silk, cotton, sugar, with premiums and exemptions, and promotes the further judicious offer of aid and example by agricultural societies. In most other respects it leaves the people free to work out their own plan of operations, which is undoubtedly for the best.

One momentous question is the tenure of land. In Spanish America it has been so illiberal as to discourage enterprise and check development. Under English rule in British Columbia similar obstacles were interposed by grants to a monopoly which retarded settlement, and subsequently by the high price of land, when tracts could be obtained for nothing in the United States, with superior soil, climate, and markets. The government had gradually to adjust its conditions to those ruling southward. Mexico likewise modified colonial restrictions, but so injudiciously as to surrender large grants to a few, and withhold the needful acreage from the classes most requiring it, and most likely to make good use of it. In the United States liberality has, on the other hand, passed to the extreme of extravagance, with the result that little valuable land remains to the nation in the immense regions once possessed, and with the glaring evil of its absorption in vast tracts by speculators, to the prejudice of immigrants. There is still time for reform by restrictive laws, and by equitable taxation, which shall distribute burdens alike to all, and compel the large owners to subdivide their large farms and ranges into the small holdings so favorable to progress and to the happiness of the greatest numbers.

The expansion of agriculture has been influenced by a variety of causes. The conquest by Spaniards, and subsequently by Anglo-Saxons, brought not alone fresh and liberal consumers, but new cultures and methods, and new markets beyond the sea. The Spanish colonial system, however, seldom permitted the colonies to produce anything that might detract from the trade and industries of the peninsula or of favored sections. Thus vines were extirpated on the American continent so as not to reduce the export from Spain. Frontier settlements, like California, were still further restricted in favor of the mother colony, so as to lapse into absolute stagnation and misery, and were driven to smuggling, and finally to revolution. Under Mexican régime trade was almost entirely limited to hides and tallow from the stock ranges. Occupation by the United States brought more energetic men and an expansion which for a time was diverted for the benefit of mining. This very market proved an opening for the hitherto circumscribed farming of Oregon and British Columbia, which in their turn supplied the demand from internal and adjacent mining regions. Then California discovered the adaptability of her valleys for the easy and cheap cultivation of cereals, and soon rose to one of the principal wheat exporting countries of the world.

Restrained by distance from ports and by high railway tariffs, the interior states have little to export beyond bullion and livestock, which can be moved with little trouble to almost any point, Oregon, for instance, having sent sheep to eastern markets, and cattle, for that matter, have been regularly transmitted from New Mexico, Texas, and other eastern points to the Pacific slope for breeding and fattening purposes. Here, in the interior stock, is favored by the vacant plains and slopes, covered with nutritious grasses and streaked with numerous streams, and this industry has assumed vast proportions, notably along the upper eastern slopes of the Rocky mountains. Envious of the profits, monopoly has stepped in to form a number of small companies, some with a capital of a million dollars, to carry on the business. These again have united into associations extending over several territories, for the economic and effective management of the stock, and for protection against the organized bands of robbers preying upon it. Many an effort has also been turned against the introduction of sheep on the cattle pastures, as injurious to the grass, but the law has interposed its decision in favor of the latter.

Stock-raising monopoly has everywhere to recede before steadily advancing settlement, which raises the price of lands and imposes costly burdens in the shape of fences and taxes. Thus in Mexico it was compelled to move to the northern frontiers. In California it was expelled from the coast counties, notably after the severe drought of 1862–3, and thence was for the most part driven across the ranges into Nevada and to the slopes of the Rocky mountains, there to be in due time assailed.

Not that it is entirely expelled, for California still contains her cattle-kings. Moreover, farmers adopt it on a smaller scale as a valuable adjunct to their fields, for gleaning and manuring. They have found additional profit from the superior quality and size of the animals fed on cultivated grasses, within fences which save the cost of herding. The value of this method is shown in the improvement effected in the stock, which once ran wild on the Spanish frontier plains. The merino sheep brought from Europe by the conquerors had here deteriorated to animals bearing only a little coarse wool. The breed that is raised in Vermont and other eastern states was subsequently introduced on a large scale and with excellent results, California, for instance, becoming famed for the weight and texture of her fleeces, the size of her animals and the quality of her blankets. In somewhat similar degree have the cattle and horses been improved, the latter gaining a reputation in California for speed, in Montana and adjoining territories for strength and endurance, qualities due to soil, atmosphere, and other conditions.

The decrease in special stock-raising is less to be regretted, when we consider its comparatively insignificant contribution to progress. Small towns or hamlets, and comfortless dwellings, mark the predominance of cowboys and herders, and even the relatively settled conditions attending the industry in colonial California did not produce other than dingy homesteads, equally neglected within and without. They bred a restless disposition unfavorable to the amenities of advancing civilization.

Climatic influence is more strongly marked on the Pacific coast than in the east. In Mexico and large sections of Central America three zones, corresponding to tropic, semi-tropic, and temperate, follow closely one upon the other along the abrupt slopes from the ocean to the lofty plateau of the interior east, with its own peculiar vegetation. Northward the climate ranges from the semi-tropic in California to the temperate on the uplands eastward and toward Alaska, where plant life fades away under Arctic severity; yet grain can be cultivated as far north as Pease river and near the Rocky mountains, in Wyoming, at an altitude of seven thousand feet. Rich sheltered valleys and dry wind-scoured plains alternate, with thermal belts throughout, favored above adjoining sections by freedom from frost or other drawbacks.

California is particularly well endowed by nature, with the balmy climate of perennial spring, permitting the constant and rapid growth of animals as well as plants; easy cultivation; leisurely harvest under an unclouded sky; varied products among which the vine is gradually assuming the foremost place, to shape the future of the state; to form here the France of North America, with the small farms and vineyards of a closely settled population, excelling in intelligence and prosperity.

Soil and climate in uniting to assign different staple products to different regions gave to Mexico maize and frijoles, as well as the agave, which provides material for food, drink, clothing, building, and many other industries; and by their side flourish coffee, sugar, cocoa, vanilla, dyewoods, cochineal, and many drugs and fibres. In California oats sought the moister coast region; barley throve in the interior valleys, its culture stimulated by the increase of breweries; maize, being less adapted to the soil in general, had to yield the first place to wheat, whose glutinous and dry qualities soon opened to it the markets of the world. Here also the vine found not only a congenial soil but a peculiar development in a low self-supporting stalk favorable to cultivation and cheapness. The southern lowlands yielded sweeter wine, and northward the poorer slopes compensated for quality by dryness and superior quality. Low pruning promoted also the safety and quality of the orchards, and the thrifty growth of the mulberry tree permitted the raising of the silkworm. On the interior plateaux predominate, as we have seen, livestock, with crops of barley and certain artificial grasses.

Social conditions have interposed their influence to create eras in staple productions. Thus the Spanish conquest lifted from neglect the tierra caliente regions by means of sugar and coffee plantations, before unknown in Mexico. In California the access of Boston trading vessels caused the expansion of stock-raising from a mere branch to the all-absorbing occupation of the province. This yielded in its turn to wheat, and now the vine and citrus, after several ephemeral excitements, rise to the leading position. In the interior the mines first gave incentive to vegetable gardening, followed by general farming, which is gradually encroaching upon stock-raising. The increase in cereals and other products was marked, moreover, by a series of shocks to trade, which had to abandon one class of provisions after another, and seek compensation from other imports, and in time from exports. In California the blow to mercantile enterprise from the sudden expansion of home production was so severe as to cause disaster.

The massing of population exhibits also its effect on cultivation. Dairies seek the vicinity of large towns: milk producers nearest, butter and cheese makers next to them. Gardeners gather in between, composed of Italians and Chinese, the latter adhering mostly to the old-fashioned methods in vogue across the ocean, where the spade is widely the substitute for the plough. As for ornamental gardening, that pertains almost exclusively to the Anglo-Saxons. Although the aborigines of Mexico display an admirable fondness for flowers, the Spanish portion of the population cares little for the shrubbery, lawns, and flower-beds which form so attractive a setting for homes in the United States. The Spaniards absolutely denuded portions of Mexico of trees, and accustomed to the bare uplands of their own peninsula, they made no attempt to replace them, even though the planting of groves has been shown to increase the rainfall, while lessening the danger from the frequent floods in the interior valleys. So in colonial California their dwellings stood bare and desolate in field or town, shrinking even from arboreal shade. Behold now, under new domination, the rivalry of residents to excel in beauty of architecture and in floral embellishment, with houses embowered in shrubbery and orchards, the streets lined with trees, the highways shaded, aud here and there attempts to remedy the omissions of nature by planting entire forests!

The races differ in their predilections. The Indian prefers the roaming life of a hunter, supplementing the chase with the search for roots and berries. The Spanish-American evinces a particular bent for a nomadic life, with little patience for enforced labor. The practical and progressive Anglo-Saxon excels in the energetic pursuit of the highest duties conducive to progress.

The American has a decided inclination for experiments, surpassing in original and useful inventions. In California alone his ideas have revolutionized mining, reduced agricultural labor by the aid of machinery fully fifty per cent, and contributed a host of labor-saving appliances to other industries. Here the expense of ploughing has been reduced to less than half a dollar an acre, a rate unprecedented elsewhere, and seeding and harrowing are often performed at the same time, to the saving of time and labor. Machines exist also for cutting, threshing, and sacking grain in one operation. The result is that one man can here cultivate one hundred and thirty-seven acres, according to the federal census, while in England one man is employed for every fifteen acres. This indicates the vast scale on which agriculture is here carried on, due partly to the cheapness of land

and the easy conditions for cultivation, which led to inventions and speculative efforts. This remark applies also to many interior states, although California presents exceptional facilities.

Agricultural colonies, promoted by the government or by associations, form a conspicuous feature. Aside from missionary efforts to establish farms and train Indians to work them, the Spanish frontier settlements were largely composed of semi-military colonies, from Texas to California, and even at present along the Mexican border. In British Columbia the fur monopoly bound itself to introduce settlers, and so build up the country, although its performance was meagre. In Alaska convicts were utilized for the same purpose. The United States offered premiums of large land grants to encourage the occupation of Oregon, and stood ever prepared to protect those who advanced its frontiers.

Thus ever increasing bands of settlers began in the thirties to cross to the Pacific coast, whose praises had been sung by trappers and travellers for a decade previously. They shunned the intermediate slopes of the Rocky mountains, stamped as they were by official declaration as desert plains and basins. Mining was the next colonizing medium, and brought fresh observers to controvert such false statements, and encourage the industry of farming. It also assisted in filling up the north Mexican states. Otherwise Spanish colonization was a forced measure for territorial expansion. This feeling actuated also the people of the United States, but it was subordinate to the desire for securing homes, with the advantage of an early selection of sites and resources.

Colonies of modern days are becoming much more coöperative. In such settlements as Greeley in Colorado, and Anaheim in California, irrigation and town improvements form the sole mutual bond, but others proceed further. In Utah poor immigrants are aided by the state and by neighbors to reach the country and to establish farms: implements, seed, and other material, and provisions until harvest, being freely provided, together with practical guidance. They start under fair prospects, although so hampered by debt and dues, and, as elsewhere, by lack of sufficient markets as rarely to earn more than a bare subsistence. The commune system is ancient in America. Among the Nahuas land was in common, as I have said, as well as many other adjuncts, and Mexico still maintains the communal features in many directions, with town pastures and certain labor for the general fund. In Yucatan the farmers assist one another in tillage and care of crops.

Coöperation appears also in various associations, as of stock and grain growers, horticulturists, and so forth, for protecting and improving their respective interests. The granges have gone so far as to open warehouses, banks, and stores, and even to provide special means of transportation, in order to render themselves independent of middlemen. Their existence is a standing check on extortion in behalf also of the mass which does not join them. It is a protecting bulwark which does much to foster prosperity and attract immigration. To this end contribute also the many agricultural societies of states and counties, with their experiments, displays of methods and results, and premiums. The unfolding of science and inventions will give wide expansion to coöperative methods and division of labor, partly by the assignment of special tasks to agents or to chartered corporations, under healthful control.

Such, in brief, is the condition of agriculture on the Pacific coast, in its social and industrial aspects. With our advantages of soil and climate it has distributed among the white population a prosperity seldom equalled in other portions of the world. On the aboriginal and mixed races of Mexico and Central America its effect has been to relieve them from the straits of a precarious existence, alternating between abundance and lingering starvation, between enervating indolence and subjection to cruel hardships.

MARTIN MURPHY, JR.

CHAPTER II.

THE MURPHYS.

ANCESTRY — MOVE TO CANADA, AND THENCE TO MISSOURI — OVERLAND TO CALIFORNIA — INCIDENTS OF THE JOURNEY — THE FIRST WAGONS TO CROSS THE SIERRA — POLITICAL ISSUES — THE MURPHYS JOIN MICHELTORENA — LIFE AT SAN JOSÉ — GRANTS AND SQUATTERS — CLOSE OF CAREER.

IN the annals of California there is little that contains more of interest, and certainly little that is more instructive, than the lives of its representative pioneers,—those for the most part stout-hearted and self-reliant men, who by their courage and tireless energy contributed so large a part toward laying the foundations of our present social life, and of the commonwealth as it exists to-day.

It is not always the person whose name is most on the lips of men who has performed the most valuable service to the community. The best and most useful lives are often those that cause the least comment. For the influence for good of one man who founds a household, and regulates it in accordance with the principles of the moral law, of sobriety, of justice to one's neighbor, is, I do not scruple to say it, vastly greater than that of the man who wrangles himself into eminence in senate or legislature, or fights his way to glory in war. And particularly, in a country like California, where domestic life can hardly be said ever to have had so firmly established a hold as in many of the older states, such a man, together with the family he establishes, is a shining light, whose example cannot be hid, and whose influence must be taken into account in considering the growth of a new social organism from the condition of a raw frontier community toward principles of good order and of justice in the every day relations of life.

The Murphy family is one of the oldest in Ireland, and embraces in its lineage, priests, warriors, and rulers. At the opening of the present century its representatives resided at Balnamough, in the county of Wexford, near the spot where the ruined towers of the royal palace, once inhabited by the kings of Leinster, overlook one of the most beautiful vales in Ireland. Here, on November 12, 1785, was born Martin Murphy the elder, and here he spent his youth and early manhood. While still quite young he married Miss Mary Foley, several members of whose family afterward became prominent in America, one being an archbishop of Baltimore, and another archbishop of Chicago; while still another, the Right Reverend John Foley, bishop of Detroit. In 1807 was born Mr Murphy's eldest son, Martin Murphy junior. A number of other children were born to him at Balnamough, among whom were several sons, and a daughter, named Mary. As his family increased, Mr Murphy, who was an intelligent, industrious, and pious man, became more and more discontented with the disadvantages under which the Irish people were placed by the government of Great Britain, and with the meagre political liberty accorded them. He therefore determined to leave his native land; and in 1820, taking with him all his children except his eldest son, then a boy of thirteen, and his daughter Mary, he emigrated to Canada, settling at Frampton near Quebec, where he purchased land and established his home.

A few years later, in 1828, the younger Martin, with his sister Mary, set out to join his father in Canada. Soon after leaving port the vessel was driven by contrary winds into the harbor of Waterford, and here many of the passengers, losing heart, abandoned their voyage. The Murphys were not among them, but kept on their way, landing safely at Quebec after a pleasant trip of twenty-eight days, at that time one of the quickest passages on record. Upon his arrival young Martin spent several years in Quebec. On July 18, 1831, he married Miss Mary Bulger, whose wifely devotion followed him through all the vicissitudes of over fifty years. The year after his marriage he left Quebec, owing to an outbreak of cholera, and purchased 200 acres of land near his father at Frampton, felling with his own hand the large trees upon the place, shaping them into planks, and making for himself a home in the wilderness. At that date the population consisted mainly of French Canadians; but already the elder Murphy had gathered around him an Irish settlement, in the midst of which for many years he lived like a chieftain among his tribe.

But the sterile soil and harsh climate of this portion of Canada were serious drawbacks to protracted settlement, and it was at length determined to remove to some more hospitable region. At this time glowing reports were in circulation concerning the fertile lands and boundless resources of Missouri; and in 1840 the elder Murphy and his children, with the exception of his sons Martin and James, set out for that region, and after traversing the wilderness that lay between, settled in Holt county, on what was then called the Platte purchase. Two years later his sons joined him, the elder leaving in the churchyard of St Edwards two of his four children. Of this little church, where amid the wilds of Canada the devout assembled for worship half a century ago, not a vestige now remains, while a dense growth of underbrush covers the graves in which many of their sons and daughters were laid to rest.

By modern travellers a trip from Quebec to St

Joseph would be considered but a trifling matter; but in 1842 the journey occupied almost as much time as would now suffice to make the circuit of the globe. From Quebec they steamed up the St Lawrence to Montreal; thence across Lake St Louis, and by way of the St Lawrence to Kingston; thence crossing lake Ontario, they proceeded up the Niagara river to Lewiston, just below the falls, and thus to Buffalo; from Buffalo they went by Lake Erie to Cleveland, Ohio, and then proceeded by canal to Portsmouth on the Ohio river; thence they went by steamer to Cincinnati and Louisville; thence down the Ohio to Cairo and by way of the Mississippi to St Louis. From this city they proceeded up the Missouri to the Platte purchase, a few miles below the present flourishing city of St Joseph. The site of the city, however, contained at that date only a few scattered farms, and a solitary grist-mill. From the landing-place the family was conveyed to a spot known as English grove, so called by an English settler who applied the name to the only cluster of trees that appeared in this timberless region. Here the younger Martin purchased some three hundred acres, a portion of which he planted in wheat and corn, and here the family thought to spend the remainder of their days. The soil was fertile, and the settlers had every reason to feel satisfied with their success in agriculture. They were soon followed thither by many of their former neighbors from Canada; and a settlement was formed, to which was given the name of Irish grove.

The spot was not destined, however, to be their permanent home. There were several things that caused them to feel dissatisfied with the locality. First and most important of all was the fact that there were no religious advantages. This was severely felt, for the Murphys had always been loyal catholics, and were desirous that their children should be trained in the faith of their fathers. There was also the lack of any adequate educational facilities, a serious matter with a family in which there were so large a number of children. In addition, the climate of this part of Missouri was malarious; ague and other ailments common to newly settled regions prevailed. Among the victims of the fever was Mr Murphy's wife, who had been Mary Foley, and who was deeply and deservedly regretted. His son, the younger Martin, had also lost three daughters, Elizabeth, Mary, and Nellie. At this juncture, while the Murphys were mourning over the loss of loved ones, and full of anxiety as to the fate of others, the settlement was visited by a priest, Father Hookins, who in the spirit of his church had penetrated the wilderness to administer the sacraments to those of his faith who were residing in this outpost of civilization. He was a man who had travelled widely, and who was well informed. He described to them the well-nigh perfect climate of California, told them of its fertile soil, and spoke of the missions, of the churches and schools which had been established by the Franciscan Fathers, and of the religious and educational advantages they would consequently enjoy. To their inquiries he responded by giving them all the information he possessed as to the location of this western land, and as to the route by which it was to be reached. When the elder Murphy announced his intention to set out thither, he found all the other members of the family ready to follow him, in spite of the prospect that lay before them of a journey of two thousand miles through the wilderness. In the spring of 1844, the elder Murphy, then in his sixtieth year, gathered around him his children and his grandchildren, disposed of his farm and most of his effects, purchasing with the proceeds oxen, wagons, and provisions, and started for the rendezvous frontier post on the Missouri, later known as Kanesville, and later still as Council bluffs. Although this company was piloted by Elisha Stevens, it is usually known as the Murphy party, from the number and prominence of the members of the family. It consisted of Martin Murphy senior; his eldest son, Martin Murphy junior, wife, and four children, James, Martin, Patrick W., and Bernard D.; his son James Murphy, wife, and daughter Mary; his sons Bernard Murphy, John M. Murphy, and Daniel Murphy; his daughters Ellen and Mary; James Miller, the husband of the latter, afterward a resident of San Rafael; Mr Martin, the father of Mrs James Murphy; Dennis Martin, Patrick Martin, Dr J. B. Townsend and wife, Allen Montgomery and wife, Captain Stevens, who afterward settled in Tulare county, Mr Hitchcock, Mrs Patterson and family, Mat Harbin, Mr Calvin, John Sullivan, afterward of the Hibernia bank, and his sister, Robert Sullivan, Michael Sullivan, John Flombeau, a Canadian half-breed, Joseph Foster, Oliver Magnet, Francis Delanet, old Mr Greenwood, and Moses Schellenberger, a brother of Mrs Townsend, at that time a boy of eighteen. There were eleven wagons, the younger men being mounted. A party of Oregon emigrants accompanied them as far as the sink of the Humboldt, the combined company numbering nearly a hundred persons. Martin Murphy, the elder, was chosen captain of the California party, with his eldest son next in command.

At the rendezvous at Council bluffs the party remained for a few days to make repairs and perfect their plans. The following account of the journey was furnished by one of the members of the party, beginning with the passage of the river. "The wagons were safely crossed in a rude flat-boat, and it was intended to swim the cattle. The river was full, and they refused to take to the water, and when forced in would swim in a circle, trying to save themselves by climbing on each other's backs. They were finally permitted to return to the bank, but some sank in the sand, which had been tramped by them until it was treacherous as quicksand. When the water receded, a few of the mired cattle were dug out, but others were fastened so securely and deep that it was impossible to rescue them, and they were abandoned. It was a question whether they would be able to cross with their cattle at all. At last an expedient was hit upon. Two men got into a canoe with a line, which was tied round the horns of one of the gentlest of the oxen. The ox was urged into the water until he was compelled to swim, after which the men in the canoe could easily guide him. Other cattle were then forced into the stream, and following the lead of the first, they were all safely crossed to the other side.

"They were now in the country of the Otoe Indians, a tribe which, though not considered hostile, had a very bad reputation for honesty. Of the people of the train only a few had crossed when night came, and the young men volunteered to go over and stand guard. Those who were on the Otoe side were Martin Murphy and his family, and John Sullivan, with his two brothers and his sister Mary, who afterwards married Mr Sherbeck, of San Francisco; John Murphy and Moses Schellenberger had been chosen corporals of the guard. They were mere boys, not over eighteen years old, but were excellent marksmen, and had a reckless bravery born of frontier life. The wagons were formed into a corral by drawing them into a circle and placing the tongue of one wagon on the hind wheel of the one in front, thus making a very good sort of a fortification. The guard was placed outside of the corral and relieved every two hours, each relief being in charge of a corporal, whose duty it was to go from post to post and see that each sentinel was alert. While in places where the cattle might be lost or stolen, it was customary to graze them under charge of herdsmen until dark, and then to bring them to the wagons. This precaution was taken on this first night across the river, on account of the bad reputation of the Otoes. The time passed quietly until midnight, when the young corporals became disgusted with the monotony, and resolved to play a joke on John Sullivan. The proposition was made by John Murphy, and endorsed by Schellenberger, though not without some misgivings as to what the result would be if Martin Murphy should detect them. To be assured, they told Mr Murphy of the plot, who entered heartily into the spirit of the scheme. Accordingly John unfastened Sullivan's cattle, and drove them some distance into the woods, and he then gave the alarm. Sullivan, who it seems had all night been convinced in his own mind that the Indians were hovering about the camp, jumped up with his gun in his hand, and all joined in the pursuit of the oxen. After a long chase, in which Sullivan was given a due amount of exercise, the cattle were captured and secured to the wagon Sullivan returning to his slumbers. He had barely got to sleep when the alarm was again given, and he again turned out, with some words not indicating respect for the thieving Otoes. This time the boys had driven the cattle further than before, and the only way they could be followed was by the clinking of the yoke ring. During the chase, Sullivan climbed to the top of a log, and stood listening intently for this sound. John Murphy, who was lying concealed behind this log, when he saw Sullivan in this position, fired his gun into the air which was a shotgun heavily loaded. Sullivan leaped into the air, and as soon as he could recover himself ran at full speed to the wagons, crying out that he had been shot by an Indian. In the meantime the cattle were recovered and secured to the wagon, and Sullivan stood guard over them until daylight. He used afterwards frequently to refer to the narrow escape he had from the Indians in the Otoe country."

Two days later the emigrants had crossed the Missouri, and were in full swing westward. When the Elkhorn was reached they crossed it in a rude ferry-boat constructed from one of the wagon boxes, rendered water-tight by a covering of raw-hides. The other wagons were taken to pieces, and with their contents conveyed across the river in this improvised craft. The process was long and tedious. After all the goods were landed, the cattle and horses were forced into the river as before, one being taken forward as a leader.

Passing thence through the Pawnee country and by the north fork of the Platte, which was followed as far as Scott bluffs, they encountered buffalo. "The first were a few old bulls," says the same narrator, "which, not being able to defend themselves from the attacks of the younger animals, had been driven from the herd. They were poor and scrawny, but as they were the first the boys had seen, they must necessarily have a hunt. After putting about twenty bullets into the body of one old patriarch, they succeeded in bringing him to the ground within fifty feet of the wagons, in the direction of which he had charged when first wounded. The meat was poor, and did not pay for the ammunition expended in procuring it." Shortly afterward they came across herds of younger buffalo, and were able to keep themselves provided with an abundance of this excellent meat. On the march across the plains, the company met with few losses in cattle or other stock. Occasionally an animal would die, or stray from camp. In one case it is related that an ox belonging to Martin Murphy junior broke away from the corral in the night, and could not be recovered. Mr Murphy therefore had to yoke an old milch cow to the team; and it was some weeks before he was able to find another ox to supply the place of the one that had escaped.

The party at length reached Fort Laramie, where they found four thousand Sioux encamped near the fort with their women and children. There was, however, no immediate danger to be apprehended from them, as the tribe was for the time friendly. The party halted at Laramie a number of days, feeding their stock on the abundant grass, and trading some of their horses for Indian ponies, which they believed would prove hardier and better adapted to the plains. From the Indians they purchased also moccasins to take the place of shoes now nearly worn out.

The party, though so large, was an exceptionally harmonious one, and scarcely any disputes arose. One occurrence, however, more amusing than serious, is related: "While passing through the Sioux country, the orders were that no fires should be lighted after dark. This order was disregarded by an elderly man named Derby, who kept his fire burning after hours. Dr Townsend, who had charge of the watch that night, remonstrated with him. Derby answered, that Captain Stevens, who had given the order, was an old granny, and that he would not put out his fire for him or any one else. The fire was duly extinguished by Townsend, who thereupon returned to his duties. A few minutes only had elapsed when the fire was burning as brightly as before. Townsend again went to Derby and told him he must put the fire out. 'No,' answered Derby, 'I will not, and I don't think it will be healthy for anyone else to try it.' The doctor, seeing that argument was useless, walked up to the fire and scattered it broadcast, saying to Derby at the same time, 'It will not be well for you to light that fire again to-night.' The doctor was known to be very determined, although a man of few words, and Derby's fire was not again lighted. Before the next morning he complained to Captain Stevens, the guide, who it seems had been a witness of the transaction the night before. Stevens sustained Townsend; and Derby with an oath declared he would not travel with such a crowd; and he actually did camp about half a mile behind the train for a week afterwards, but he lighted no fires after dark. One day when the party had stopped for noon, some of the boys returning from a buffalo hunt reported that they had seen a band of Sioux. That night Derby camped with the train, and remained with them afterwards, cheerfully submitting to all the rules."

During all their journey through a region as yet unoccupied except by savages, the company were never molested by the latter, and even maintained with them friendly relations, sometimes pitching their tents side by side with an Indian encampment, inviting the Indians to their own quarters, and making them presents of game, fresh meat, blankets, and cast-off articles of clothing. At night sentinels were posted, and a strict watch maintained until daylight; and thus with proper vigilance and kindly treatment they suffered no harm from their dusky brethren. But for these precautions trouble would doubtless have occurred.

After passing through the Sioux country the emigrants continued by way of the right bank of the Platte and the Sweetwater. Up to this point they had been taking their time, and progress had been slow. As provisions were becoming short they determined before leaving the buffalo grounds to lay up enough dried meat to last them, and each day four or five men were sent out to kill buffalo. After they had proceeded some distance up the Sweetwater, they halted for some time, and organized hunting parties to scour the surrounding country for buffalo. At this camp, which was near Independence rock, a daughter was born to James Miller, to whom was given the name of Ellen Independence, who later became prominent among the social circles of San Rafael where her father afterward resided.

After leaving this camp on the Sweetwater they continued to hunt buffalo until the summit of the Rocky mountains was reached. No more buffalo were encountered beyond this point. From the top of the great divide they could see the land stretching far away until lost in the distance. The course of the rivers here was toward California, and they felt they were almost there. They little realized that the most difficult and painful part of their journey was still to come.

On descending into the valley they moved toward Green river, passing Little and Big Sandy. After a whole day without water, they finally reached Green river. They were now in the country of the present Wyoming. While a portion of the party who had been separated from the train for two or three days were making their way back to camp, they saw two mounted Indians on a hill not far distant. A moment later others appeared, and in ten minutes a horde of several hundred savages were circling around them with war whoops and hideous yells. The little band of white men, among whom were Daniel Murphy and Schellenberger, were by no means daunted. Following the advice of the former they maintained a bold front, and awaited the approach of the enemy. They had already prepared themselves to meet the expected assault, when twenty of the Indians advanced to within fifty yards and held out their hands in token of amity. They proved to be a band of friendly Shoshones and a number of them accompanied the young frontiermen back to camp on Green river, where the Indians were courteously received and allowed to satisfy their curiosity by examining the camp. Under a less considerate leader, and with less self-restraint, they all might have perished.

From Green river the company proceeded across a broken country to Bear river, and down that stream to Fort Hall. Here one of the Oregon party succumbed, which was the only death that occurred during the journey. A coffin was made from planks taken one from each of the wagons. The deceased had joined the party at Council bluffs, and had accompanied a man by the name of Shaw, the first to bring sheep across the plains.

At Fort Hall the company remained a week or more. Being out of flour they were forced to purchase some here at a dollar a pound. Fort Hall was the point at which the Oregon trail branched off from the route to California, and here therefore the two companies separated. Proceeding, the Murphy party crossed Raft river and Goose creek, and came to the headwaters of the Humboldt, which stream they descended for a distance of five hundred miles, until they arrived at its sink, where they halted for a week. They found some difficulty in obtaining pure water, for alkali abounded everywhere; but there was some feed, and the condition both of the emigrants and of their stock was good. They were in much doubt, however, as to what route to follow from this point. Before them on the west lay a wide desert, and some of the company thought the proper route to take was to the south of it, while others thought the party should go due west. At length, after much anxious debate, an old Piute was discovered, with whom they were able to converse by means of signs, and by drawings in the sand. He offered to act as guide, and informed them that some fifty miles west there was a river, where were large trees, and where the grass and water were good. After three of the party had ascertained by reconnoitering that his statement was correct his services were accepted, and it was determined to set out across the desert without further waiting. To this old Indian was given the name of Truckee by the emigrants, on account of his resemblance to a French acquaintance of the Murphy's in Canada; and after him was named the river, and the town built in later years at the eastern limits of California.

On the morning set for the departure an incident occurred that might easily have been fraught with disastrous results. The party up to this period had had no disputes with the Indians whom they had encountered during their journey; on the contrary they had received assistance from them, and information as to their course. But this result had been brought about only by the exercise of the greatest vigilance upon the part of the older men, especially of Martin Murphy senior and his eldest son. On some of the younger men, who were disposed to look with suspicion or dislike on the Indians, and to attribute to them any loss that occurred, a constant watch had to be kept, in order to prevent their less prudent judgment from giving way to some rash act. Another of the party, a half-breed named Flombeau, who possessed the bitter hatred of his race for the Indians, would apparently have taken pleasure in shooting them down as he would elk or buffalo, in wanton sport, had he been permitted to do so. On this morning, while teams were being harnessed and preparations for the departure were actively progressing, young Schellenberger, then a lad of eighteen, suddenly noticed that a halter was missing from his wagon. Several Indians of the neighboring tribe of Winnemuccas, attracted by the bustle, had been straying through the camp. Schellenberger, who, though young, was generally conspicuous for his prudence, was greatly irritated for the moment at the incident, and the consequent delay it caused him, and running to the place where the rifle stood, seized it and pointed it at the Indian who stood nearest the wagon. Just as he was about to fire, Martin Murphy junior, with great presence of mind, rushed in between them and threw up the gun. For a moment everything was in tumult, Indians from the neighboring camp and white men crowding around in confusion. Through the wisdom of the leaders, however, the Indians were pacified by explanations and apologies, and were sent away loaded with presents. The act was merely the momentary impulse of a boy, and was hardly committed before it was regretted.

The company set out across the desert the same day, carrying with them cooked provisions for two days, together with all the water they could find vessels for, and did not pause until the following midnight, when they halted at a boiling spring in a spot called later Hot Springs station, on the Central Pacific railroad. After a rest of two hours they again pressed forward. During the greater part of their march across this eighty miles of desert they were knee-deep in the alkali dust. Not a drop of water was encountered with the exception of the boiling spring just mentioned; and the cattle were so crazed with thirst that for a time it was doubtful whether the emigrants would be able to reach the river with them. When the party arrived in sight of the stream, whose banks were covered with a rich growth of green grass and dotted with shade trees, it was necessary to unharness the horses and oxen, as otherwise they would have dashed headlong into the river, and wrecked the wagons.

The company encamped for two days by the side of this river, which they named the Truckee in honor of the old chief who had guided them thither; and then, refreshed and invigorated, they set out up the stream toward the summit of the Sierra. As they ascended the river the country became rougher and the hills greater in altitude, and much of the time they were forced to travel in the bed of the stream. The latter was so tortuous in its course that often they were compelled to cross it eight or ten times in travelling a mile. The feet of the oxen were softened by the water and worn down by the rough bowlders in the river bed; the journey was also extremely fatiguing to all the party; but it was necessary to press on, for it was now toward the middle of October, and already several light snows had fallen. The oxen had to be urged on constantly, or they would not have taken a step. Much of the time the men had to walk in the water beside them, in order to force them to move. As if this were not enough, there came a fall of snow a foot deep, covering all the feed. "The poor, footsore oxen," says one of the party, "after toiling all day, would stand and bellow for food all night, in so piteous a manner that the emigrants would forget their own misery in their pity for their cattle; but there was nothing to offer them except a few pine leaves, which were of no effect in appeasing their hunger." Still they toiled on, never thinking of turning back, and longing for a view of that lovely land so eloquently described to them by the mission priest in Missouri, until they arrived at the fork of the Truckee. Here they found an open place and rather good feed. They therefore encamped, the spot being that now occupied by the town of Truckee.

As there was some difference of opinion as to the best route to follow in crossing the mountains, certain of the party who were impatient to reach the other side determined to leave the main body with the wagons, and to push forward on horseback up the main stream, and so reach some settlement on the western slope. This party consisted of Daniel and John M. Murphy, Miss Ellen Murphy, Mrs Townsend, her servant Francis, and Oliver Magnet. In the course of their journey Daniel Murphy, who was riding some miles in advance of the others, came upon Lake Tahoe, being it is said the first white man to gaze upon its placid waters. He at once rode back and told his companions of the magnificent body of water that lay in their path, and the whole party soon arrived in sight of it. From this lake they made their way to the head-waters of the American river, and descending the banks of the stream, after some difficulties and suffering, although without loss of life, they arrived at St Clair's rancho.

In the meantime the main party with the wagons followed the Little Truckee for two miles until they reached a lake, which they named Truckee, but which has since been called Donner lake. Here they halted for several days. Only one mountain now lay between them and California, but this appeared to be an insurmountable barrier. It was now toward the end of November, and the snow was two feet deep. The party spent a number of days in trying to find a pass, and at length discovered a route that appeared to them a practicable one, although attended with great difficulty. Before the company began the ascent, Dr Townsend, who with his brother-in-law, Schellenberger, had brought along an invoice of costly goods consisting of broadcloth satins and silks with the intention of selling them in California, determined not to risk the attempt to carry them across the mountain at present, but to store them by the side of the lake until he could reach California and make arrangements for having them brought over on pack-mules. As the goods were very valuable, Schellenberger volunteered in the mean time to remain and take care of them. Two others, Joseph Foster and Allen Montgomery, offered to keep him company, which offer was accepted. The main party then started to cross the mountain. Following the north side of the lake to its head at the base of the mountain, the emigrants unloaded the wagons, harnessed to them double teams, and started toward the summit. The contents of the wagons were carried in their arms. About half way to the top of the mountain a perpendicular rock ten feet in height was discovered lying across their path, and they thought they would be forced to abandon the horses and cattle, and everything but the few goods that could be carried over on their shoulders. At length, however, a narrow rift in the rock was discovered, of just sufficient width to admit of the passage of one ox at a time. The yokes were removed, and the cattle driven through. The latter were then stationed near the upper edge of the rock, the harness was replaced on them, and chains were attached to the tongues of the wagons below. The men at the bottom then pushed the wagons upward as far as they were able, while the oxen tugged at the chains; and thus one by one the wagons were all finally landed on the other side of the barrier. After a few hours of further toil they reached the summit of the Sierra.

Not since the days when the great law-giver beheld from Mount Pisgah the promised land, or since Vasco Nuñez de Balboa gazed for the first time on the primeval glories of the Pacific, were men filled with so much of joy and gratitude as those who now looked down on the fair plains of California. Already winter had put on her robe of emerald; and beneath them in boundless prospect stretched terraces of brightest green, down which the mountain streams dashed headlong in their course toward the silent flowing rivers that interlaced, as with a thread of silver, the vales of this western Eden.

A march of twenty miles down into the valley brought them to the upper waters of the Yuba. It was now December, and on reaching the river they formed a camp, and determined to pass the remainder of the winter here.

The Murphy party was thus the first to open a wagon trail across the plains to California, their route being mainly that traversed by the Union Pacific railroad in later years. They were also the first to cross the Sierra by way of the Truckee and Bear rivers, their route here also being substantially that now taken by the railroad; and their train contained the first emigrant wagons that ever made tracks in Californian soil.

Before they had been in camp many days rumors reached them of the civil conflict at that time taking place in the territory between the Mexican governor, Micheltorena, and the native Californian party under the leadership of Alvarado and the Castros; and it was not long before they found themselves unexpectedly involved in the quarrel as partisans.

Manuel Micheltorena, who, in 1842, had been appointed governor of California and comandante-general, as the successor of Alvarado, was a man not without administrative ability and tact in minor affairs, and affable in disposition, with considerable dignity and impressiveness of bearing. Although in more serious affairs he was somewhat dilatory, and without very great force of character, he was nevertheless desirous of dealing fairly with the Californians, and of improving the condition of affairs in the department. Upon the whole his administration had been a good one, and personally also he was not unpopular. But he had the misfortune when he entered on the duties of his office to bring with him from Mexico as a guard, a battalion of men which the government had recruited for him from among the most undesirable classes. The larger part of them were *chollos*, ex-convicts, whose presence was anything but agreeable to the Californians among whom they were quartered. They were an unprepossessing lot; some were minus an ear, others had huge scars across their faces. There was scarcely one of them that did not possess some mark of former broils. If they had confined their evil propensities to the chicken-stealing for which they had a special aptitude, probably the Californians would have made up their minds to endure them. But their continued depredations, and especially the violence of their demonstration in favor of Micheltorena, when it was rumored that he was to be recalled to Mexico, led many people to fear that from a band of petty marauders they would soon be transformed into an organized company of robbers, who would be a source of terror to the whole country. There were other causes to bring about the revolt against Micheltorena's rule. The Californians were great intriguers, and their generally bloodless revolutions were familiar incidents to most of the inhabitants since the days of Spanish rule. Among the more prominent Californians were several men, like Alvarado, the predecessor of Micheltorena, and José Castro, whose ambition prompted them to take advantage of the unpopularity of the chollos for personal ends. There was also a certain amount of hostility among the native inhabitants of the department toward Mexicans *de la otra banda*, and a preference for Californians as opposed to Mexican rule.

Therefore, when in November 1844, Alvarado, Castro, Jesús Pico, and other malcontents signed a secretagreement at Monterey to oppose Micheltorena, and shortly afterward, with a party of fifty Californians, issued a pronunciamento at the cañada de San Miguel, and seized the arms and stores at San Juan Bautista, they felt sure of the support of the larger part of the population in behalf of their cause. They went to work actively to effect an organization, and obtained a number of reinforcements. Their army consisted of about 150 men, under the command of Castro and Alvarado. From the cañada de San Miguel they retreated slowly north as Micheltorena advanced from Monterey. Reinforcements continued to arrive, including a company of Americans from San José under Charles M. Weber, until the insurgent army amounted to about 220 men. Micheltorena halted at the rancho of Juan Alvires, some ten miles southeast of San José; and Castro and Alvarado, who by this time had reached Santa Clara, marched down thence to meet him. No battle was fought, for the two armies, after manœuvering and negotiating for two or three days, finally came to an agreement, and a treaty was signed at Laguna Seca, by which Micheltorena bound himself to send the chollos from the country, and the insurgents agreed to return to San José, and await the fulfillment of his pledges.

It appears certain, however, that Micheltorena had no intention of carrying out this promise when the treaty of Laguna Seca was signed, but merely made it to gain time. His own forces were not sufficient to assure him of a favorable result in case he gave battle to the rebels. He therefore wished to delay until reinforcements promised by Sutter should reach him at Monterey.

Sutter had, from the inception of the revolt, been an ardent supporter of the governor. His motives for this have been variously stated. His friends, of whom he had many among all classes of Californians, have asserted that he desired simply to uphold the legitimate government in its attempt to put down an unwarranted rebellion. Others, who take a less favorable view, claim that his chief motive was the hope of receiving a large tract of land, which, he admits in his *Personal Reminiscences*, had been promised to him by Micheltorena. It is a difficult matter to pass judgment on the question now. That he was a man who had many good qualities, one who always treated new-comers with hospitality, and relieved their necessities, is an admitted fact. Whether in this case he was laboring to further his own private interests, or whether he really believed that the status of American settlers in California would be more secure under Micheltorena's rule than under that of the insurgent leaders, may be left an open question. However this may be, the facts are that he did everything in his power to enlist the American settlers in Micheltorena's support, and raised a battalion composed partly of them, and partly of his own followers, and some of the neighboring Indians. It was currently reported that in case Micheltorena was defeated, the rebels intended to banish all Americans from the territory and confiscate their property. It is true that some of Alvarado's men, who were incensed at the Americans for taking part in what the former regarded as their own private quarrel, had boasted that they intended to drive all the *gringos* out of the country ; but this was far from being an official utterance of the insurgent leaders ; and that the fear was entirely unfounded is proved not only by the fact that Alvarado as governor some years before had treated the Americans with great favor, but also by the fact that when subsequently successful the rebel leaders took no steps of this kind. The attempted revolution did not have in the remotest degree reference to the American settlers. But many, especially among the more recent comers, were naturally inclined to believe the reports, and were therefore disposed to take up arms with Sutter. The Murphys, who had just arrived at the Yuba, were influenced somewhat by them, and felt that their families would be safer under the present government than they would in the event of its overthrow by the insurgents. At any rate they determined to take up arms in behalf of Micheltorena's cause, which it could not be denied was that of the legitimate government; and they decided to set out at once for Sutter's fort to join the battalion which was there forming. Therefore, leaving the women and children in care of James Miller and a few other men, the Murphys, together with most of the available men, set out from the camp. Upon their arrival at New Helvetia they were placed in a company of American riflemen, 100 strong, with Captain Gannt in command. Another company, composed of 100 Indians, was commanded by Captain Ernest Rufus. These, together with eight or ten artillery men, and a brass field-piece, made up Sutter's little army, which, well armed as it was, and composed of skilled riflemen, was to be the arbiter of the coming contest.

With this force Sutter marched to join Micheltorena. After passing Marsh's rancho, where they were joined somewhat reluctantly by the owner, their line of march lay through the Suñol rancho, the mission and town of San José, and along the Salinas river. The whole journey from New Helvetia occupied but a week. While nearing Salinas they came unexpectedly upon Manuel Castro, who was riding unattended, and made him a prisoner. A few days afterward they exchanged him for a prisoner taken by the other side. On the 9th of January they were joined by Micheltorena, who had marched from Monterey to meet them. Their combined force now numbered 400 men; and Alvarado, having only 90 men, saw the hopelessness of opposing him, and resolved to transfer the struggle to the south, where he was confident of support, and of large accessions to his ranks. Accordingly he retreated toward Los Angeles, where he arrived on the night of the 21st. Micheltorena, meanwhile continued slowly to advance. At Santa Bárbara he spent a week or more, then moved on to Carpintería, where he again encamped. At Los Angeles, in the meantime, a junta of the leading citizens had convened, and had sent to treat with Micheltorena, requesting him to dismiss the chollos in accordance with his promise, and assuring him of the support of all classes in case he acceded to this petition. Micheltorena, however, refused to treat with them, or to recognize the junta in any way. The latter thereupon met and declared the governorship vacant, and appointed Pio Pico governor *ad interim*, at the same time forwarding to Mexico a record of their proceedings. Alvarado's force was augmented by recruits from Los Angeles, and by a company of Americans and other foreigners. His army then marched out from Los Angeles, and the advance guard of 150 men under Castro took up a position at San Buenaventura.

On the 8th of February a party of fifteen men, among whom was John M. Murphy, at that time a boy of nineteen, were sent out from Carpintería, where Micheltorena was still lingering, to reconnoitre the enemy's position. Venturing too near the hostile camp they were surrounded, and all taken prisoners. After being detained five days in a large hall in San Buenaventura, during which time, however, they were well treated, they were sent back on parole. A few days later the Murphys were granted permission by Micheltorena to return to their families, whom they feared might be out of provisions,

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and possibly in serious want. They were joined by thirty-five others, who did not care longer to uphold a cause with which they no longer sympathized.

The remaining incidents of the campaign are soon told. Castro retired to Los Angeles, and Micheltorena moved on by way of San Buenaventura to the San Fernando valley, near the Cahuenga pass. Here Castro, reinforced by Alvarado, prepared to resist his further advance. The Americans on both sides, now thoroughly tired of the dispute, met and agreed to remain neutral, and Micheltorena, thus losing the portion of his force upon which he had reckoned most, after making a show of resistance and keeping up a cannonade for some hours, capitulated, no blood having been spilt upon either side, except that of two horses, and possibly that of a mule, which was currently reported to be slain.

Shortly afterward the chollos, who had been the cause of all this debate, were shipped back to Mexico, and Micheltorena himself soon departed. A little later Pico was confirmed by the Mexican authorities as the legitimate governor of California.

The Murphys, in the meantime, had obtained a supply of provisions at Monterey, and had returned toward the Yuba. It was a proof of very considerable courage on their part that they should thus set out alone, with no protection but their rifles, through several hundred miles of country aroused against Micheltorena and those who had taken his part. But their courage was equalled by their prudence, for during the journey not a hostile gun was fired, and providence seemed to be with them here, as it had been elsewhere. On reaching the Yuba they found all of the company safe, although provisions had become very scarce, and Mrs Patterson and her children had been forced to subsist for fourteen days on rawhides. During their absence had been born the first of the native daughters of California of pioneer parentage, Elizabeth Yuba Murphy, a daughter of

Martin Murphy the younger, afterward wife of William P. Taaffe, one of the leading merchants of San Francisco.

In the meantime Schellenberger and the two men who had been left behind in the mountains had very nearly met the fate which two years later befell some of the members of the Donner party in the same locality. On the morning after the departure of the main body, the three men set to work to build a cabin, constructing the walls of new-cut saplings, and roofing it with rawrides and pine brush. The dimensions were about twelve by fourteen feet. A chimney eight or ten feet high was built on the outside, and large stones were used for the jams and back. The cabin had no windows, nor were the apertures chinked in the usual manner. A hole, cut for a door, was left open day and night. This cabin was one of the three used by the Donner party in 1846.

For a time the men sustained themselves on such provisions as they had, hoping later to secure game. But the snow continued steadily to fall day by day, and by December, when they had killed the two cows that had been left with them, the cabin was nearly covered by it. It was impossible to hunt, and nothing remained but to endeavor to force their way across the mountains to a settlement. Taking with them some strips of dried beef, some blankets, and their rifles, they set forth with snowshoes constructed from such materials as were at hand. They made the mistake, however, of fastening the shoes at both heel and toe, and were thus obliged to lift the whole weight at each step, together with the soft snow that accumulated upon both extremities. The journey, in the course of which they were obliged to make their way through hazardous passes and over difficult obstructions, was extremely fatiguing. Schellenberger, with untrained muscles and less staying power than that of the older men accompanying him, in a few hours was scarcely able to drag one foot after the other. To add to his misery, in the middle of the afternoon he was seized with cramps, and fell down several times in a paroxysm, his companions waiting for him each time until the attacks had passed, and then assisting him to go forward. At sunset they arrived at the summit of the mountain. They made a fire on the crust of the snow, and lay down on a bed of pine brush; but all night long they remained awake. In the morning Schellenberger was so stiff that it was out of the question for him to think of attempting the long journey that still lay before them. Nothing was left but for him to return to the cabin, while his companions went on without him. It was a dismal parting, and the words "Good-by, Mose" which fell upon his ears as he turned away never ceased to ring in them in after years. He made his way back to the lonely cabin, and with great tenacity supported life through the months that followed, watching for the relief which his friends had pledged themselves to send him. He found it impossible to kill any game, for the few foxes and coyotes that remained in the mountains were too shy to permit him to approach within range. When only a small piece of dried beef remained, and the thought of starvation was becoming familiar to him, his eyes happened one day to fall upon some steel traps left by Captain Stevens in one of his wagons. It was a happy thought. With the heads of the two old cows for bait, he set the traps that night, and when, on approaching them the next morning, he found a half-starved coyote between the teeth of one of them, he felt that death was now indefinitely postponed. Three days later he trapped two foxes, which he found better food than the coyote. He was so hungry, he says, that he could have eaten a fox at two meals; but he made one last him two days, and hung up those he did not need. He had no vegetables or bread, but he did not crave them. Happily he had some books left from the collection which Dr Townsend had brought with him, and the sound of his own voice as he read aloud by the light of the pine knots in the evening served to break the monotonous silence of the weary days.

One evening toward the last of February, as he was standing before his cabin observing the sunset, he thought he saw in the distance the figure of a man approaching. His first thought was that it was an Indian, but in a few minutes he recognized the kindly face of Dennis Martin.

After their joyful greetings were over, there was much news to be related on both sides. When his own narrative had been told, he learned from Martin of the safe arrival of the party at the Yuba, of the Micheltorena war, and of some of the deprivations the company had been obliged to undergo during the absence of the men.

On the next morning the two set out together, and Martin, who was a Canadian, and accustomed to the use of snow-shoes, showed Schellenberger how to fasten them. Without serious hardship, although with some suffering on the part of Schellenberger, who was weak from scanty food and lack of exercise, they at length reached camp, shortly before the arrival of Martin Murphy and the other men from the war.

The party, once more united, pushed on toward Sutter's fort by way of Bear river, and after some further difficulties from spring freshets and lack of food, at last reached the fort toward the end of March 1845.

Thus ended this journey. There are two features in it that are especially worthy of note. The first is that it was a peaceful journey. There were no Indian fights, no loss of life, no injustice shown to red men or white. The second feature is that the whole journey, including both the trip across the plains, and over the Sierra Nevada, was accomplished without serious loss of property. The party brought with them to their new homes in California the horses, wagons, and goods with which they had set out. This was due to the prudence and good judgment of the party, especially of its leader, as well as to the moderation and kindness which they showed to the savage races with whom they came in contact.

After spending a week at Sutter's fort the several members of the party separated, each family taking its own course. Martin Murphy senior, together with his children and their families, proceeded to San José. Here, some thirty miles to the south of that town, he purchased a tract of land, giving it the name of St Martin, and engaged in stock-raising. Surrounded by his children, he prospered, living in patriarchal abundance, with his flocks and herds, his lands and his numerous household. His name was known far and wide throughout the state for the hospitality he showed to all. The adobe house in which he resided, though long since crumbled into dust, was situated on the highway between Monterey and San Francisco and was the stopping-place for all travellers who passed that way. It is related by General Sherman that the army officers in California, no matter in what direction they were heading, would try to bring up at Murphy's, where they knew they would have a good time.

One member of the household who added light to it in the eyes of all sojourners was Ellen Murphy, a sweet and attractive girl, bright and witty, and like a sunbeam, especially in a country where members of the gentler sex were so rare. She was for many years one of the best known woman in California. She was married, in 1850, to Captain Weber, the founder of Stockton, and a veteran of the Mexican war.

When the death of the elder Murphy occurred, on the 16th of March 1865, no one was more deeply regretted. To rich and poor alike his hospitalities had been extended, and he was mourned by all. It is related of him that he never uttered a harsh or unkind word, even of an enemy—if it can be said that he had an enemy—while he was ever ready with excuses for those whose conduct had been censured. Strict in his religious duties, he never failed until a short time before his death to attend each Sunday the church at San José, although it was distant some twenty miles from his home. Here also his remains were interred, followed to the grave by a large concourse of mourners.

Kindly and considerate in his life, with truth and sincerity stamped on his gentle features, his character justified the reputation he bore as one of the noblest of Christian gentlemen.

Other members of the Murphy family had meantime prospered in life, and had acquired wealth and prominence in various portions of the state. In the summer of 1845, Martin Murphy the younger had purchased two square leagues of land on the Mocosume, now the Cosumnes river, about eighteen miles from Sacramento, or New Helvetia, as were then called the single adobe house and fort of which the settlement was composed. There he remained until 1849, raising the first wheat that was ever grown in the Sacramento valley. His crops were cut by Indians with sickles, and collected into a single stack, portions of it being pulled to the ground, as required, and the grain trampled out by horses, and then thrown against the winds to separate the chaff and dust from the wheat. This primitive mode of thrashing was the only one in use at that time. There was one thing observed with regard to it, however, namely, that under this system rust or smut was unknown, and the kernel of the wheat was preserved from injury.

At this date food was abundant in the Sacramento valley; for on the plains were countless bands of deer and antelope, while on the ranchos were lakes well stocked with fish through the winter overflow of the river. The waters of the Sacramento were then as clear as crystal, and abounded with salmon; but after the introduction of hydraulic mining both streams and lakes and the bottom lands adjoining were choked with débris.

At his home on the Cosumnes he entertained Captain Fremont and his party, among whom were Kit Carson, Godoy, and others, who had been piloted over the Sierra by John M. Murphy. Fremont, indeed, made the rancho his headquarters for a time. Here also, after he had removed farther north, the Bear flag revolution was first discussed, and here occurred the first act of hostility against the Mexicans, Lieutenant Arce being surprised and captured, and the band of horses of which he was in charge being appropriated, although fresh animals were furnished through the kindness of Mr Murphy. Throughout his career he always appeared in the role of peacemaker, never seeking a quarrel, though the last man to yield when one was forced on him. At this period parties of Indians constantly visited the rancho, where they would fish in the lakes and streams, hold their war-dances, and seek employment during harvest; but by none was he ever molested, his firm yet kindly treatment winning their respect and gratitude.

On this farm was also established, in 1846, the first school ever organized in the Sacramento valley. The first schoolmaster was named Patrick O'Brien, and was engaged by Mr Murphy. By him the Murphy children were taught for a number of years. It appears that, although an educated man, he had enlisted in the army while in reduced circumstances, had come to California in Fremont's party, and had then probably deserted. One day while he was engaged in teaching, Lieutenant Sherman arrived at the farm, and arrested him for desertion. He was, however, finally released. The later history of this pioneer schoolmaster is unknown. He left the locality in 1849 for the mines, and no news was ever afterward received from him.

Five sons and three daughters were born to Martin Murphy junior, namely, James, Martin, Patrick W., Bernard D., James, Elizabeth Yuba, Mary Ann, and Ellen.

In 1849 the Sacramento valley was flooded with gold-hunters, and the value of stock rose greatly, so that Mr Murphy was able to dispose of his place, with 3000 head of stock for a large sum of money, reserving 640 acres, including his homestead, which were afterward sold for a small price, being covered with mining débris.

In the same year he purchased the rancho Pastoría de las Borregas, in Santa Clara county, near Mountain View, some ten miles northwest of San José, and now known as Bay View farm. Through it runs the Southern Pacific railroad, one of its stations being named after the owner of the place. Even at this time San José consisted of only a cluster of twenty or thirty adobe houses, and in all the wide valley of Santa Clara there was not a single edifice of wood or brick. To Mr Murphy is due the credit of erecting the first frame building in this section of the state, his dwelling being built in Boston, and shipped in sections to San Francisco by way of Cape Horn. With a carpenter named Dawson a contract was made to put it together in return for 500 acres of the land; and of this land his widow is still possessed, its present value being at least $300 an acre.

When Mr Murphy first occupied his Pastoría rancho in the spring of 1849, the entire valley of Santa Clara, with its rank growth of wild mustard, looked like a widespread cloth of gold. As yet there was little cultivation. At first, therefore, the tract was used mainly for stock-raising, though hay and grain were produced in considerable quantities; in later years, however, as the country filled up with settlers, and the land became too valuable for the former industry, the entire area was planted in cereals. The high prices then prevailing for grain and stock, united to able and energetic management, insured a handsome revenue, the surplus of which was mainly invested in real estate. In Santa Clara county Mr Murphy became the owner of two other ranchos, including together some 10,000 acres, and of valuable property in San José, consisting of the Jefferson and Washington blocks, and the Murphy block on the corner of Market and Santa Clara streets. In San Luis Obispo county he purchased the Santa Margarita, Asuncion, and Atascadero ranchos, comprising in all 70,000 acres, including Point Conception, which was afterward sold to the government for lighthouse purposes. A portion of the property in San Francisco was purchased from his father, in order that the money might be equally divided among his children; although to each of his sons, as they grew to manhood, the older Murphy had given sufficient property to enable them to start in life, retaining only enough to support himself in his simple mode of life. At the time this purchase was proposed to him, the younger Murphy at first objected, on the ground that his brothers and sisters might consider the price insufficient; whereupon his father, turning to Judge Ryland, who was then drawing up his will, exclaimed: "Is it possible that I have raised up a son who will disregard a dying request?" It is almost unnecessary to state that the objection was withdrawn to the satisfaction of all the members of the family.

In the early days the large landholders were all greatly troubled by the claims of squatters. The American immigrants, coming as they did for the most part from states where there was public land in plenty, were inclined to look upon the great ranchos they found here of thirty, forty, or a hundred thousand acres, as rightfully public domain also. Where private interest led the way, it was a very easy step for them to convince themselves that they had some kind of divine right to the land, and that such great holdings were more than one man had a right to. With the greatly abused native inhabitants of the country, their method was short and easy. Greasers, even if they were the native dwellers on the soil, might well be thankful to be allowed even to exist. They were even then an obstruction to the advancement of the state, and of the great American nation. Their lands were seized without scruple; and between the claims of these banditti of whom the country has little reason to be proud, and the contingent fees of the attorneys who defended the owners' rights, Spanish Californians were largely fleeced out of lands and homes. Even the American landholders, as well as the Swiss, Sutter, had for many years a hard fight with the squatters, although in the end the validity of the Spanish and Mexican grants was confirmed by congress. In no place were the squatters more audacious than in the vicinity of Sacramento, where they were led by Charles Robinson, a man of considerable ability, who afterward became governor of Kansas.

For years Mr Murphy was troubled with the claims of these men, who continued from time to time to come and settle on his Pastoría rancho. The method Mr Murphy employed with them was characteristic of him and of the spirit of the Murphy family as a whole. When he heard of squatters locating on his tract he would go over and have a quiet talk with them, telling them that it was a Spanish grant, that he possessed the patent for it, and that they would surely lose both their time and their opportunity for acquiring real public land, and in the end would come out with nothing; they could go and consult with any competent attorney, and they would find it to be so. Generally after this they would conclude to give up their claim of their own accord. If they had made improvements, Mr Murphy made them adequate compensation upon their retiring from the place. In some cases, where the squatters were more persistent, it was necessary to contest their claims in court; but this was never done in a bitter spirit; and pleasant personal relations were at the same time maintained with them. In many cases of this kind where the intruders were, through their litigation, pinched for the necessaries of life, Mrs Murphy extended to them a charity as Christian as it was unusual, supplying them with provisions and clothing, and ministering to the necessities of their families; until a sense of shame induced them at last to abandon their pretensions.

I mention this matter somewhat in detail, not only for the reason that it was, as I have said, characteristic, of the whole tone of the Murphys' dealings with their neighbors, but because it is peculiarly noteworthy as an almost solitary example of its kind. Too many bitter animosities have been aroused, too many dark tragedies have been caused by following the opposite course. Nothing of this kind ever happened in the case of the Murphys. By following the course they did, all hostilities between the land-owner and the squatter were avoided, and no bitter spirit was ever manifested, or ever existed.

Notwithstanding his broad possessions, Mr Murphy could not be induced to leave his home at Bay View farm, and here were passed most of the remaining years of his useful and beneficent life. Throughout the county, and indeed throughout the state, he was widely known, like his father, for his charity and hospitality. From his house no traveller was sent empty away, and to those who asked, employment was given, for which they received pay in money, even though the task were a needless one. For well-nigh forty years the house has thus been kept open by Mr Murphy and his descendants; but during all this time not the slightest loss has been incurred by theft or incendiarism.

Though simple in his habits, living on the plainest food and avoiding all excess, using neither tobacco nor strong drink until after his fortieth year, and then only as a concession to social customs, Mr Murphy's entertainments were on a liberal scale. Never had Santa Clara county witnessed such festivities as those which marked the celebration of his golden wedding on the 18th of July 1881, and never did her citizens join more heartily in doing honor to one who had been so long identified with the progress and welfare of the state.

As the day approached, it was found impossible to issue invitations to all of their friends, and a general invitation was therefore published in the newspapers, but with the express condition that no presents should be offered by any of the guests. The spot selected was the beautiful oak grove which surrounds Murphy's station on the Southern Pacific, a few rods distant from their residence. Here, before noon, were gathered some four thousand people, and later the number was increased to fully ten thousand. Special trains from San Francisco and San José had been chartered by the host; and from all the country round hundreds came in carriages and on horseback to offer their congratulations. Bands of music were in attendance, and a spacious dancing pavilion was erected, at one end of which, under a canopy of flags, wreathed with flowers and evergreens, the bride and bridegroom received their guests. Above them were suspended clusters of white flowers, in the shape of a marriage-bell, on the surface of which were displayed in scarlet figures the dates 1831 and 1881; while rare and costly floral decorations, presented by their children, had been prepared for the bridal feast.

Tables had been spread in the shade of the oak grove, and near them barbecued meats of all descriptions gave forth inviting odors. For the banquet there had been prepared seven large beeves, ten hogs, and fourteen sheep, with wagon loads of game, poultry, and hams. The wine cellars had been filled with the choicest of foreign and domestic vintages, including a car-load of champagne; while for those who preferred lighter beverages, there were provided fifteen barrels of ale and beer, and five hundred gallons of coffee.

At the conclusion of the repast the health of the venerable pair was proposed, and among those who responded to the various toasts were Peter Donahue, P. W. Murphy, William M. Gwinn, and others. Then was read by a grandchild of Mrs Murphy a poem from the pen of Miss M. Fitzgerald, entitled "Congratulatory Address to Mr and Mrs Martin Murphy, on the Fiftieth Anniversary of their Bridal Day, July 18, 1881." The following is the opening stanza:

"Shine, O golden light of summer,
Over hill and vale to-day;
Breezes bring the sweetest fragrance
From the blossoms round your way;
And ye green and leafy woodlands,
Fling your waving shadows wide,
As we bring our joyous greeting
To the bridegroom and the bride."

This was followed by an original poem by James T. Murphy, and one by a sister at the college of Notre Dame at San José, who was Mr Murphy's niece, both of them dedicated to the groom and bride. On being called upon for a speech, C. T. Ryland, vice-president of the Commercial and Savings bank of San José, alluded in the course of it to Mrs Murphy, and to the honored and beneficent position she had filled during all these years as the mistress of the Murphy household, concluding with these words: "Here is happiness, health, and wealth to her, with the hope that she may live to enjoy it up to and beyond the day of her diamond wedding; and when the end does come, may she receive the reward which I know is waiting this noble mother in Israel." To this sentiment all the assemblage responded by rising to their feet, and standing with uncovered heads.

As the day wore on the gathering increased. At noon the board of supervisors at San José, and the superior court, though trying an important case, adjourned their sessions; bench, bar, and jury uniting to do honor to the occasion. Among the prominent features of the entertainment was the large number of pioneers, and other men of note, who assembled to join in the festivities. Many of them gathered in groups, recounting the incidents of their early careers, or wandered amid the shady avenues admiring the beauty of the park-like grounds, and the preparations made for the occasion. Far into the night multitudes lingered among the illuminated groves; for the scene was one of surpassing loveliness, one that has never before or since been witnessed in California, and one that will long be remembered among the most pleasing episodes in the annals of the golden state.

In religion, Mr Murphy was a strict and devout catholic, as was his father before him, firmly devoted to his church, and contributing with no sparing hand to its support. To Archbishop Alemany, who always accepted his hospitality when visiting the neighborhood, he intrusted large donations for this purpose; and mainly through his financial support the bishop was enabled to reorganize, in 1850, the church at Santa Clara, appointing new priests, and repairing the mission buildings which were already falling into decay. In the observance of his religious duties he was noted for his unfailing regularity. On Sunday he never omitted, except through sickness, his attendance at divine service; while night and morning, every day in the week, family worship was held, at which all the members of the household were required to be present.

To his aid and advice is also due the founding of Santa Clara college, and of the convent of Notre Dame. Acting on his suggestion, the bishop summoned for the former purpose Father Noble, who for many years had labored as a missionary among the

Indians of Oregon, and who was appointed the first president of the college. It was not until after a severe and protracted struggle that this institution, which now ranks as the foremost catholic college in the state, was fairly established. Its first pupils were the sons of Mr Murphy, all of whom were graduates of Santa Clara, as were his daughters of Notre Dame. To the sisters who founded this convent he furnished the means wherewith to purchase the site which it now occupies at San José.

In politics Mr Murphy was a democrat, and one who, though he never sought or would indeed accept office, was an active member of his party, unflinching in his adherence and liberal in its support.

To the policy of the English government toward Ireland he was strongly opposed. As an illustration of his opinions on this subject may be mentioned an incident which occurred in 1881, when the "no rent" agitation first began to assume a threatening aspect. In that year a member of the British parliament, T. P. Healy, came to San José for the purpose of giving a lecture in the interests of the no rent party. The mayor of the city, Bernard D. Murphy, was requested to preside; but before giving his consent he sought his father's advice, suggesting that if the party succeeded in Ireland they might attempt such measures here, and in that case American tenants might resort to violence in order to reduce the rents which they paid their landlords. As the father was a man possessed of broad acres, and with many tenants, could he or his son afford to sympathize with the claims of the Irish party? "You go back and preside," said his father; "when landlords in America become like the landlords in Ireland, the sooner the people are rid of them the better." With this sentiment the younger members of the family concurred; for though admitting the greatness of England, and the great part she has played in spreading civilization throughout the world, they cannot recognize the justice of treating an integral part of the British nation with a degree of severity which one of her own colonies would resent.

As a business man Mr Murphy was uniformly successful, though making haste slowly in the accumulation of his estate. He was ever careful not to go beyond his depth, and although the owner of 90,000 acres of land, only 3,000 were farmed in any one year, and not more than 10,000 cattle, with perhaps 500 horses, were pastured on the remainder. Before concluding a bargain, he would carefully consider all its aspects; and when he had spare funds at command, would compute the interest the money should earn, the return it would yield if invested in lands or cattle, and then arrive at a decision which the result never failed to justify. Among his neighbors, and among those who had dealings with him, he was noted for the soundness of his judgment, and the force and acumen which he displayed in the discussion of all business transactions. By some his method may have been considered somewhat old-fashioned; but perhaps a little more of this method would benefit some of the Californians of to-day.

In physique Mr Murphy was rather tall, erect and soldier-like in bearing, hale, robust, and with a compact and well-proportioned frame, well fitted for the toils and hardships of his earlier career. Care sat lightly on this sturdy and vigorous pioneer, whose light-brown locks even at threescore and ten were unsilvered by the frosts of time. On his expressive features, his spacious forehead, and especially in his clear gray eye, filled with light and intelligence, were stamped the highest attributes of manhood. Of his benevolence, his largeness of heart, and his overflowing charity, many incidents have been cited. None were held in more esteem, or enjoyed more fully the respect and confidence of the community. Though rigid in the observance of his religious duties, and in the highest sense a moral man, he was never austere, and could join in the games and amusements of his children, enjoying their simple pleasures and pastimes as one of themselves. Not least among his traits of character were his self-reliance and courage, which never failed him in the most trying moment, carrying him safely through every trial and difficulty, to the bourne whither he would be. "O friend," says Emerson, "never strike sail to fear. Come into port greatly, or sail with God the seas. Not in vain you live, for every passing eye is cheered and refined by the vision."

Soon after the celebration of their golden wedding, Mr and Mrs Murphy removed to their residence in San José, where were passed the few remaining years allotted to the former. When it became evident that his span of life was drawing to a close, he joined with his wife in executing a deed conveying to his children in equal shares their entire property, designating the estates which each one should occupy, and reserving for themselves only a life interest in the rents and profits. Thus were avoided the expense of probate and partition, and the possibility of future litigation.

On the 20th of October 1884, having then almost completed his seventy-eighth year, he passed quietly and almost painlessly to his rest, mourned not only by his family and his intimate friends, but by thousands who only a few years before had assembled to grace his wedding festival. Among those who were present at his obsequies were many pioneers and leading citizens from all portions of the state, while throughout the city the marts of commerce were closed, and flags at half-mast betokened widespread sympathy and esteem for one whose memory none could forget to honor.

His wife in 1891 was still residing at the Bay View farm, being then in her eighty-sixth year. In many traits of character she resembled her husband, particularly in her energy and resolution, her excellent judgment, her economy, the strict simplicity of her habits, and her unswerving honesty, which, in the opinion of her neighbors, she carried almost to an extreme. If a bargain were made, she insisted that the purchaser should first know everything in connection with it, even though it should be to her own disadvantage. No transaction of importance was ever concluded without her approval. A devout catholic, and with deep religious feeling, she believed that everything was ordered by an all-wise providence. During her latter years she was tended by her daughter, Mrs Arques, and, in the midst of her children and grandchildren, was surrounded by every comfort and gratification that loving hands could devise.

Before concluding this history of the Murphy family it will be of interest to take a glance at the career of the other children of Martin Murphy senior, all of whom played prominent parts in the founding and development of the state.

James Murphy, the second son, was born at the family home in Wexford, Ireland, September 19, 1809, and at the time that he removed with his father to Canada was eleven years old. Being a bright, active boy, with stout frame, he was able to assist his father greatly in establishing the new home. As he advanced toward manhood he engaged in the lumber trade, and at the age of twenty-four years made a journey to Maine in connection with this pursuit. For nine years he was in business for himself in Canada, and during this period married Miss Ann Martin, whose parents had come from Ireland in 1829 and settled near the Murphys. From this marriage two children were born in Canada, the first a son named Martin, who died before the family removed to California, and the other a daughter, Mary, who afterward married B. S. Machado, of Gilroy. With his brother Martin he followed his father to Missouri in 1842, and engaged in the lumber business in St. Joseph for a short time before the final removal of the family to California. After his arrival there he settled for a time in Marin county, and furnished the lumber for the Leidesdorff wharf, the first wharf built in San Francisco. In 1849, owing to the scarcity of laborers for his lumber yard, he was forced to suspend his business, and finally himself went to the gold fields. He did but little mining, however, and shortly afterward went to Santa Clara county and purchased, with his brother Daniel, the rancho de las Llagas, in the vicinity of Gilroy. Later he purchased several of the famous five-hundred-dollar lots north of San José, and built a residence on the property for his family. In 1872 he erected a house at a cost of $40,000, and planted one of the earliest olive orchards. Besides the two children already memtioned, the following were born in California: Martin D., born February 6, 1845, at Sutter's fort; Helen E., born at Corte Madera, December 18, 1847; William B., born August 21, 1850, at Ringwood farm; Elizabeth A., born July 8, 1853; Julia A., born January 6, 1855; Helen, born April 18, 1860, who died in infancy; Daniel J., born April 25, 1861.

Mr Murphy was prosperous in his agricultural and horticultural undertakings, and at his death, which took place January 13, 1878, left property valued at $300,000.

Bernard Murphy, the third son of Martin Murphy senior, was born at Frampton, Canada, in 1822, and after coming to California in 1844 with his father, lived with him on the St Martin rancho for a number of years. He married Catherine O'Toole, and had one son, Martin J. C. Murphy. He was killed in 1853, in the explosion of the steamer *Jenny Lind*. His widow afterward married James Dunne. His son, a young man of high promise, died at Washington, in the midst of his studies, in 1872.

John M. Murphy, the fourth son of Martin Murphy, was born in Frampton in 1824, and was eighteen years old at the time of the overland journey. After reaching California he took part in the Micheltorena embroglio, as already narrated, and after his capture at San Buenaventura, and subsequent release, accompanied Micheltorena to Cahuenga, and witnessed the battle at that place. During the battle he was stationed quite near the general. Micheltorena, he relates, had chosen an elevated spot from which he surveyed the movements of the enemy through a field glass. A cannonier upon the insurgent side, a large negro, who was stationed in a gulch opposite them, had, it appears, located the party with considerable accuracy, and as Micheltorena stood there, erect and statuesque, the grape shot would come whizzing through the air in such uncomfortable proximity that he was constantly compelled to duck his head.

Soon after his father settled near San José, John entered the store of his future brother-in-law, Charles M. Weber, in that town. In 1848 he went to the placer mines in company with his brother Daniel and Dr Isabel, of Ohio, a partner of Captain Weber. The party first camped on Sutter creek, which overlooked the present site of Placerville. There were no other white people in this region then, and they employed the natives to work in the mines. From Sutter creek they moved their camp down on the Stanislaus river, and built a log house. There were rich diggings all about the neighborhood, and the party obtained a considerable amount of gold. It was said that John Murphy had at one time more gold dust than any man in California. Upon one occasion he brought a mule into San José from Calaveras loaded with 350 pounds of dust, about as much as could well be packed on the animal.

As a young man he was widely known in California as one of the handsomest, gayest, and most fortunate youths in the state, and was a favorite everywhere. In 1850 he married Virginia Reed, who with her father and other members of the family crossed the plains in the Donner party, and furnished the most authentic material for the history of that sad episode.

Mr Murphy resided for the most part in San José since 1850, although he has spent some time in Nevada and in Los Angeles. In 1850 he was elected county treasurer of Santa Clara, in 1852 city recorder of San José, mayor in 1855, in 1857 sheriff, and reelected in 1859. Since that time he has taken no active part in political matters. Six of his nine children were living in 1891, namely: John M., Daniel R., S. Stanley, Mary Margaret, Virginia F., and Ada J.

Daniel Murphy, the son of Martin Murphy senior, was born in Canada, and upon coming to California at first settled with his father near San José. Later, with his brother Bernard, he purchased other lands, and owned large estates in California and Nevada, besides a rancho in the state of Durango, Mexico, consisting of a million and a half of acres, in which was the celebrated mountain of magnetic iron first described by Humboldt. He devoted his attention chiefly to cattle-raising, and possessed many herds each thousands of head in number. He died October 22, 1882, and left two children, Daniel M., and Diana.

Mary Murphy, the daughter of Martin Murphy senior, was born in Ireland, and after accompanying her brother Martin to Canada in 1828, went to her father's place at Frampton, where she lived until her marriage a few years later to James Miller. The latter was also a native of Wexford, and came to Canada with his parents the same year as did his future wife, settling near the Murphys at Frampton. After their marriage in September 1834, Mr and Mrs Miller continued to live at Frampton until 1841, when they accompanied the elder Murphy to Missouri. There they engaged in farming until the departure of the Murphy family for California in 1844, when, with their four children, they set out with them. The Millers went to San Rafael, where they arrived April 6, 1845. The next year Mr Miller bought 680 acres of land on the Gallinas grant, the deed being the first recorded in the county. He built first a large adobe, and afterward a house of still more pretentious proportions. In 1849 he drove 150 head of cattle to the placer mines, and sold them there at the rate of a dollar a pound. Besides a large dairy on his home estate Mr Miller has some 8,000 acres of land in various parts of the county. There were ten children: William J., Kate, Mary, Martin, Ellen Independence, Julia, Francis, Therese, Bernard, and Josephine.

Ellen Murphy, a younger daughter of Martin Murphy, was born at Frampton, and was still quite a girl when she crossed the plains with her father. After living several years at his place near San José, during which time her engaging manners won her many admirers, some of whom have since attained national distinction, she was married, in 1850, to Charles M. Weber, a Bavarian, who came to America, in 1836, and after taking part in the Texan hostilities, went to New Orleans and afterward to St Louis. From the last mentioned city he set out for California, in 1841. He settled in San José, and became one of the most prominent of the early Californian merchants, being looked upon as the leading man of the pueblo of San José. His was the first store established in that town; and he also held a large grant of land from the Mexican government. After the acquisition of California by the United States, in which he took a prominent part on the American side, he went to the San Joaquin valley, and became one of the founders of Stockton. It was at this time that he married Miss Murphy, whose acquaintance he had made some years before in San

José. By her he had three children: Charles M. Weber junior, born September 22, 1851, Thomas J., and Julia H. At his death, May 4, 1881, at Stockton, business was suspended, and the public offices were closed. His wife was still living in 1891.

Johanna, another daughter of the elder Murphy, likewise born at Frampton, did not come out to California until a few years after the overland party of 1844. She married John Fitzgerald, a landed proprietor near Gilroy, and had two sons, James and John, and three daughters, Marcella, Anne, and Mary. All three daughters have obtained not a little celebrity as writers of verse, and one of them has published a volume of poems.

And now, having followed the incidents of this patriarchal history to its close, let us take a brief glance backward at some of its more salient points. Perhaps the most noteworthy feature in the narrative is the fact that this family,—after having crossed the plains without hostile encounter with the savage tribes, without loss of life, or serious loss of property—settled themselves in the land with their horses and wagons and cattle, treated everyone with fairness, both Mexican and American, and by this example favorably impressed themselves, as representatives of the American nation, not only upon the native inhabitants of the land, but upon the whole community. It was said that to reach the house of a Murphy was to be sure of a hospitable reception, and to deal with one of them was to be certain of fair treatment. It is to those who have opened up new counties or new paths of opportunity to men, who have laid the foundations for true social growth, that most credit is due. Among such influences none can be reckoned higher than the example of whose lives are here written, who came from a far country to a new land, where they established themselves in peace; and, like Abraham and his sons, walked justly before God and man, prospered in all things, and became possessed of flocks and herds, and wide domains, living to a good old age, surrounded by their children and their children's children.

CHAPTER III.

AGRICULTURE—MEXICO AND CENTRAL AMERICA.

Aztec Farmers—Chinampa or Floating Gardens—Chief Products of the Nahuas—Aboriginal Implements—Corn and Religion—The Maguey—Pulque—Origin of Agriculture—The Gods in Council—Maya Civilization—Indigenous Products—Corn, Cacao, Beans, Pepper, and Cotton—Aboriginal Land Tenure—Plantations of the Conquerors—Introduction of Sugar Cane and Wheat—Plantains, Silk, Olives, Grapes, and Tobacco—Coffee, Vanilla, Cochineal, Indigo, and Jalap—Livestock—Climatic Zones—Central American Products.

According to Aztec tradition the most ancient and civilized dwellers in the Mexican valley, the Olmecs and Xicalancas, were tillers of the soil; and it may be said that among the ancestors of the several nations which occupied the country, agriculture was the chief resource for providing themselves with life-sustaining staples. To the Toltecs has been ascribed by many the introduction of this most useful and civilizing art. Contemporaneous with them, however, were other nations, less advanced in civilization, especially in the northern region, and who still subsisted by the chase and by gathering wild fruits, roots, and herbs.

The Aztecs from the earliest days of their history were farmers and corn-eaters. During the first years after coming to Anáhuac valley, when they were pent up on the small islands of the lakes, agricultural pursuits seemed impossible; but a happy invention supplied the deficiency, while awakening, with increase of numbers, an ambition to possess a larger area. The necessity of providing food was doubtless the main cause which impelled this people to enter upon a career of conquest on the mainland. The Chinampas, or floating gardens, were an evidence of their ingenuity, as well as of the straits to which they were reduced Presently maize, chile, beans, and other products were grown on them, and the larger ones bore fruit and shade trees, together with a hut on each for the man in charge. These gardens continued in use till modern times; but as the waters of the lakes receded from their former bounds, it became necessary to secure them to the shore. They are separated from one another by narrow canals, through which their produce is carried to market in canoes. In recent times the chinampas have been used only for raising vegetables and flowers.

When the population of the valley grew dense, the work of providing food became paramount. Almost every spot of fertile soil, both in valley and highland, was devoted to that end. Agriculture was an honorable vocation, in which all took part except the king and nobility, and soldiers when in active service. Nevertheless, each province raised only food sufficient for its own needs, and if through drought or other causes crops were destroyed, starvation stared the inhabitants in the face, and before relief could come to them they were decimated, or sometimes almost annihilated by the epidemics closely following upon famine.

Little definite information has reached us as to the methods of tillage among the Nahuas, except in the raising of maize, or Indian corn. The valleys were the favorite localities for cornfields, though the highlands were also made to yield this valuable staple. The plant is represented as strong in growth, and yielding abundantly, though ashes seem to have been the only fertilizer.

The Aztecs had no working animals, and their agricultural implements were few and simple. The coatl (serpent), so-called from its shape, was made of copper, and used somewhat as is a hoe by the modern farmer. Another copper implement was a sickle, with a wooden handle, employed in pruning trees. A simple sharp stick, with the point hardened by fire, or occasionally tipped with copper, was all that the poorer tillers of the soil possessed. Granaries were built for storing corn, some of them of the capacity of several thousand bushels.

In studying the calendar of the Aztecs we find that the cultivation of corn had much influence on its development, besides a close connection with their religious rites. There was a maize-god, to whom was offered with the utmost solemnity, on a certain day, the fairest and best-filled ear, which was preserved, wrapped in white cotton cloth, till the next seed-time, and then, wrapped in deerskins, was buried in the midst of the cornfields. When harvest came, its shrivelled remnants were distributed among the credulous populace as a talisman against every possible evil. The Aztecs also cultivated medicinal herbs and flowers. The latter were much appreciated, and profusely used at secular and religious festivals, and also for the decoration of temples.

The maguey plant was carefully attended to. From its juice was manufactured pulque, called by the Aztecs *octli*. Tradition gives us several versions of the rise of pulque, the most poetical one being that it was discovered by a beautiful maiden, named Xochitl, who brought some of it to Huemac, eighth king of the Toltecs. The monarch fell in love with Xochitl, and had a son by her, and after the queen's death she became his wife; and their son, Meconetzin, was the next occupant of the throne, and an excellent ruler. In a pure state the fermented juice of the maguey is wholesome, and less intoxicating than grape wine; but the natives mix with it certain herbs which increase its intoxicating properties, and thus it becomes a baneful element, which by its abuse has lured millions to destruction. The practice of adulteration was continued under the rule of the Spaniards although prohibited.

Among the wild tribes of Central Mexico agriculture was known. Corn, beans, tomatoes, chile, and a variety of fruits were cultivated. The natives of Vera Cruz and Tamaulipas gathered large quantities of the pitahaya by means of an osier basket attached to a long pole. The Otomís and tribes of Jalisco cultivated but little grain. Other tribes inhabiting the valley of Mexico, Puebla, Michoacan, and Querétaro showed a greater inclination to till the soil, living almost wholly on the products of their own industry. From the earliest times of which any records exist the natives of Oajaca and the isthmus of Tehuantepec raised corn and vegetables, as well as cacao.

In the region of the Usumacinta, on the confines of Yucatan, Guatemala, Chiapas, and Tabasco, which have as good claims as any other locality to be looked upon as the cradle of American civilization, supernatural beings took counsel together, according to an ancient tradition, to reclaim from barbarism the native savages, or human beasts, who roamed naked over the land, and subsisted on the roots and wild fruits of the forests. This story involves the origin of their agriculture, and the introduction of maize as a food plant. In the land of Paxil or Cayala, overflowing with nutritious food, those superior beings found white and yellow corn, cacao, zapotes, and many other fruits. They ground the corn, and nine kinds of drink were made from it, which served to give man strength, flesh, and stature. Through this means the savages were brought under subjection, and an era of civilization was inaugurated. Indeed, tradition had it that only yellow maize and white maize entered into the formation of the four men who were the first fathers of the Maya nations. From that time down to the Spanish conquest maize in its several varieties was cultivated by the Mayas, and was their chief reliance, as it was of the Nahuas, for their daily sustenance.

Every year, from March to May, the Maya farmer prepared his soil by cutting or uprooting the dense undergrowth, which he afterward burned, and in the ashes—the only fertilizer used—after the first rain fell, he made holes at regular intervals, and in each deposited five or six grains, covering them with the same sharpened stick that he had used to make the hole.

In Yucatan the farmers formed themselves into bands of twenty for mutual assistance until all their land was seeded. Different localities were chosen by the several members, in order to guard against a possible loss of crops from local causes. The Lacandones protected their cornfields with hedges, fences, and ditches, and boys watched them after the grain began to ripen. In Nicaragua, says Oviedo, agriculture was more advanced than anywhere else in Central America. Birds were kept away from the grainfields, and irrigation was resorted to when the rains were backward; thus were crops artificially forced, and well-filled corn was plucked forty days after the seed was sown. Far different was the custom of the Itzas, who passed most of their time in worship, dancing, and drinking, trusting to wild fruits and a fertile soil for their subsistence. The next crop in importance, that of cacao, was grown in hot and shady localities, and gathered from February to April. Beans, pepper, cotton, and numerous indigenous fruits were extensively cultivated, but of the methods employed we have no record.

The Mayas had peculiar superstitions in connection with the planting and growth of crops. They understood not the simplest laws of nature, and recognized only supernatural agencies in the abundance or failure of their harvests. In Yucatan no meat was eaten while cotton was growing. The Nicaraguans abstained from intoxicating beverage and from cohabitation with their women during the time of planting. Bundles of sticks, leaves, stones, or cotton rags were placed at the corners of each field by the old women, for the propitiation of their gods. The Pipiles performed certain religious rites and burned copal and ulli over seed which they buried in the ground. Blood was drawn from different parts of the body, and the idol was anointed therewith. The blood of fowls was sprinkled over the land to be planted. In the cultivation of cacao the finest seeds were exposed to the moonlight during four nights; and for some days preceding seed-time men did not sleep with their wives or concubines, in order that the night before the planting they might fully indulge their passions. It has been even asserted that certain persons were appointed to perform the sexual act at the moment the first seeds were planted. Before beginning to weed, incense was burned at the four corners of the field, accompanied by fervent prayers to the gods. The first ears of ripened corn were offerings to the gods, the priests, and occasionally the poor. At harvest time the corn was piled up in the field, and not moved until the grain itself gave signs that it was ready for removal, either by the springing up of a fresh blade, or the falling of an ear from the heap.

In the Aztec empire land was held under a peculiarly judicious system. Though possession was given only temporarily, the land could, through prudent management on the part of the holder, be transmitted to his heirs. That which belonged exclusively to communities could not pass into other hands, but an industrious member had full scope given him to improve his portion, and derive every possible advantage from his labor. It would have been wise for the Spaniards to have continued this system, but they preferred that of the encomienda, and agriculture was carried on only where the work was done by enforced labor. Cortés caused plantations of maize and cacao to be established, and showed an inclination to develop agriculture in a country possessed of such a variety of climate, and where nearly all the food staples of

Europe could be raised. Hence his success in the introduction of foreign grains, plants, and livestock. The crown also had old laws remodelled, and new ones framed, and urged its representatives in the colonies to promote the cultivation of the soil. New settlers were given land subject to the conditions of building a house, planting the ground within a certain time, and possessing a certain quantity of stock. Title was legally acquired only after four years' occupation, though men swayed solely by selfishness cared but little for such regulations.

Within fifty years, the royal ordinances to the contrary notwithstanding, extensive tracts of the crown lands had been illegally appropriated. Steps were taken to stop abuses, but in the long run the tenants maintained their hold by the payment of a trifling amount into the royal treasury, and the restitution of land was made obligatory only when it had belonged to the Indians. Laws passed in early days for the preservation of forests were rendered nugatory by later ones making them free to all for common use, and allowing the Indians to cut wood without restriction. Hence, such a wholesale destruction of forests that toward the end of the eighteenth century Viceroy Revilla Gigedo found it necessary to adopt restrictive measures.

Maize has continued to be the most important agricultural product both in Mexico and Central America, constituting the chief food staple, for many years after the conquest, even among the Spaniards, until the cultivation of European cereals became general. To the present time it is, with beans and chile, the almost exclusive food of the Indian population. Three, and even four, abundant crops are obtained annually in many districts, and the grain thrives in all parts of the country. The yield is often five hundred fold. Before the era of railways and other transportation facilities, a failure of the corn crop was usually equivalent to famine, as the inhabitants in their improvidence rarely provided for such a contingency. In the beginning of the present century the total annual yield of New Spain was 17,000,000 fanegas

It is on record that Cortés established two sugar-cane plantations, and that others soon followed his example, so that sugar, early in the second half of the sixteenth century, became an article of export to Spain and Peru.

The maguey, or *agave americana*, called *metl* in the Aztec, was almost as indispensable to the Mexican as maize, for it afforded him food, drink, raiment, and covering for his hut, and possessed also medicinal qualities. Of *octli*, commonly known as pulque, I have already spoken. During the Spanish domination its sale was at times forbidden by law, with the view of diminishing intoxication and averting popular tumults, such as the great riot in Mexico of 1692. But the pulque monopoly being one of the great sources of revenue to the government, this consideration overruled all others. Its fraudulent manufacture, chiefly adulterated with noxious roots to increase its intoxicating power, assumed large proportions. So powerless were the measures decreed by the authorities to check illegal practices that the sale of pulque was no longer farmed out. Sugar of an inferior quality had been at one time made out of the maguey, but its manufacture was greatly decreased after the introduction of the sugar-cane. In the second half of the eighteenth century the juice was used in the distillation of the brandy called *mezcal*, but the Spanish government checked this industry in order to protect the industries of the mother country. The same restrictions were laid on *aguardiente*, or rum made from sugar-cane juice, and it was only toward the end of the last century that these infamous restrictions were removed.

Wheat was cultivated to a large extent by means of irrigation, cattle not being allowed to pasture on irrigated land suitable for growing wheat. The yield in places is as high as seventy and eighty fold, the average in New Spain being from twenty-five to thirty fold. A species of wheat, which went by the name of *trigo blanquilla*, was noted for its great yield. For some reason it was declared not wholesome, and ordinances were issued in 1677 against its cultivation, and enforced during many years, though more or less infringed. The prohibition was revoked in 1692, after which it was freely cultivated.

Another great food staple was the plantain. After its introduction from the East Indies it spread rapidly throughout tropical America, and became a valuable acquisition in New Spain and Central America. In many parts plantain and maize are the sole articles of food for the poorer classes, being at the same time much used by the wealthy. Beans have ever been cultivated on a large scale. In Central America they are daily on the table of both rich and poor.

Silk, olives, tobacco, and in later years coffee, have also been the object of especial attention. The cultivation of grapes was discountenanced by the crown, because the manufacture of wine would have checked its import from the mother country, to whose interests everything was subordinated.

Rice yielding about forty-five fold, barley, rye, several varieties of beans, lentils, potatoes, sweet potatoes, peas of various kinds, cumin and coriander seeds, are among the food productions. The cotton crop of Sinaloa in 1873 was 550,000 pounds; the cotton district of San Juan Evangelista yielded 1,342,104 pounds.

Statistics show that in 1879 the production of pulque amounted to $4,589,528, of mezcal $1,746,646, of heniquen and ixtle, fibres from the maguey, $3,506,-053. Thus did maguey add to the national wealth in that year about $10,000,000. The surplus of the sugar crop at the beginning of the present century was 6,250 tons, valued at $1,500,000. During the war of independence it dwindled down to nothing; in

1876 it began to revive, and in 1879 it was 70,000,000 kilogrammes, worth $8,760,000. The rum distilled from the molasses is worth $2,000,000 a year.

The vine and the olive have been in a great measure neglected; but of late years protective laws have been enacted, and wine will ere long be one of the most valuable products of Mexico. The vineyard cultivated by the liberator Hidalgo at Dolores is of historical interest; from it were taken the cuttings wherewithal were formed the already famous vineyards of Parras in Coahuila. Several states are well adapted for the cultivation of the grape, especially Sonora, Chihuahua, and Coahuila. The yield of wine in the whole republic in 1879 was valued at $2,662,671, of which Chihuahua and Coahuila contributed more than $1,250,000.

Recent measures for the development of cotton promise the best results. This culture figures at present in the fifth place among the products of Mexico, the annual crop reaching 25,000,000 kilogrammes, valued at $6,000,000, which is too small to meet the demand. The colonial government labored in vain to encourage the cultivation of flax and hemp. Silk culture was equally neglected till the republican era, but the government has in recent years adopted measures to promote it. The culture of cacao was largely decreased under colonial rule. It was subsequently revived for awhile in Tabasco, owing to the protection afforded by the government, and the crop rose from 9,000 quintals in 1826 to 115,000 in 1860, valued at $2,876,000. But from that time a reaction began, and in 1879 the whole crop in Mexico was little more than 31,000 quintals, valued at $1,140,000, of which sum Tabasco contributed $880,000. The best cacao is produced in Soconusco, but the yield is small. The first coffee estates of any importance were those in Córdoba and Orizaba, in 1818 and 1819, from which time its cultivation has extended from Tabasco, through Chiapas, Oajaca, Morelos, and Michoacan to Colima. The coffee of Oajaca and Colima is of a superior quality. The production of the berry has been on the increase. Judging by the exportation the crop of 1877-8 was worth $1,275,000. In 1883 were exported 141,493 quintals, against 60,000 in 1877.

Vanilla, cochineal, indigo, and jalap, together with other medicinal productions, contribute to materially increase the wealth of the Mexican republic. The production of vanilla is constantly increasing. The same may not be said of the other staples.

Native tobacco was one of the great resources of the Mexican treasury in colonial times, yielding through the old system of monopoly $4,000,000 a year. Its cultivation is quite general in the republic, but chiefly in Campeche, Tabasco, Vera Cruz, Oajaca, and Jalisco. The value of the crop of 1879 was $2,006,153, and most of it was consumed in the country.

Cattle breeding is one of the great industries of Mexico, especially in the central plateau and in the north. Neat cattle are raised in great numbers on the coast. Swine are found everywhere, and in Yucatan are exceedingly abundant. Horses and asses are plentiful, and the breeding of mules has been a necessity, for until recently they were almost the only means for the transportation of goods and merchandise. Efforts are constantly made to improve the breed of horses, but though with considerable power of endurance the Mexican horse has many imperfections. Sheep are abundant, and wool is protected by the tariff, but the better quality and greater cheapness of foreign goods tends to check production.

In 1851 the value of livestock in New Leon was $2,250,550; in 1872 it had decreased to less than $1,116,200, notwithstanding an advance in the price. The future of this industry in Mexico is very promising. The quantity of livestock, including neat cattle, horses, asses, mules, sheep, goats, and swine, was estimated in 1870 at the following figures respectively: 4,460,000, 2,500,000, 6,800,000, 4,600,000, and 6,200,000, valued at $35,680,000 for neat cattle, $25,000,000 for horses, asses, and mules, $6,800,000 for sheep, $4,600,000 for goats, and $43,400,000 for swine.

The three climatic zones of Mexico, the tierra fria, tierra templada, and tierra caliente, account for the great variety in the products of her agricultural sections. To this must be added the inequality of the rainfall, the wet season lasting about six months in the south, four months in the plateaus, and being variable on portions of the Atlantic slope and in the warm regions. The plateaus suffer from drought, and more than half their area needs irrigation.

There are serious drawbacks to the development of agriculture in Mexico, as the concentration of large tracts of land in a few hands, and the neglected condition of the tillers of the soil. These evils will disappear, and, indeed, are already disappearing under the wise measures now in operation to elevate the laboring classes, abolishing peonage, and enforcing the subdivision of land by heavy taxes and other means. The large landowners have hitherto been the dominant element, and proved themselves a drawback to prosperity. They must, however, give way to the masses, and when the latter become owners of the soil agriculture will be among the most honorable of callings, and those engaged in it will exercise their rightful share in the government.

There is hardly a remark made herein concerning Mexico that does not apply to Central America and the isthmus of Panamá. The Spaniards found the inhabitants of the whole region to be cultivators of the soil, maize being their chief food, aside from game and fish. The natives made wines or liquors, both sweet and sour. One was obtained from a species of palm-tree; another was the chicha made from maize, a highly intoxicating beverage. The first Spanish explorers found large quantities of fermented liquors buried beneath the ground. It is said that King Cónagre had large cellars filled with wine and cider.

The Spaniards did not come to the Isthmus to till the soil, but to gather riches quickly and without labor. With a few exceptions they were little better than pirates; nor did their behavior improve in what was afterward the reino de Guatemala. They compelled the natives to work until they were on the point of death, and then turned them adrift to perish. And yet those men were the pioneers of civilization and of christianity. Notwithstanding their misdeeds communities were formed, grew up, and developed, and finally came to be what they are now, states holding a respectable standing among the family of nations. Agriculture, neglected for years, was mainly the factor which, in the face of internecine strife and frequent misgovernment, has elevated them to that position.

In the early part of this century cattle were the mainstay of the Isthmus, and of all Central America. The great staple had been indigo, with an estimated valuation of $4,500,000 a year. Sugar and raspadura were also cultivated, and some tobacco was grown. The cacao plantations had ceased to exist, and the production of jiguilite, cochineal, and vanilla had largely declined. The yearly products of all Central America were estimated in 1826 at about $52,500,000. Notwithstanding some protective laws, the great facilities afforded by the opening of the Panamá railway in 1855, and the subsequent establishment of a line ot steamships on the coast, agriculture made no notable progress down to the end of the seventh decade of the present century. Though land was free to all, the yield barely sufficed for the needs of the population in Guatemala. The change in 1871 from a retrogressive system of government to a progressive one gave impulse to this important branch of industry. Cochineal was king in its way at one time, but was dethroned by newly discovered chemical substances. The government then promoted the cultivation of coffee, and this has come to be the chief product, taking the place of cochineal in Antigua Guatemala, as did sugar in Amatitlan. Encouragement has been given to other products, such as wheat, tobacco, cinchona, jiquilite, spices, and grapes, with good results in some and good prospects in others. The following figures exhibit the agricultural wealth of Guatemala. Cochineal, reduced from 67,709 quintals in 1860–4 to 2,845 in 1879–83. Of coffee there was no crop in 1860–4; in 1883–4 the yield was 495,385 quintals, and the next year was much larger, being valued at nearly $5,300,000. The production of sugar in 1860–4 was 115,486 quintals; in 1883 the value of the products from sugar-cane was nearly $1,000,000. Rubber in 1879–83, 9,074 quintals; sundries, 1879–83, 115,999 quintals; flour in 1884, nearly 950,000 quintals. The cultivation of tobacco was making considerable progress. Livestock in 1884: horses, 107,187; mules and asses, 41,386; neat cattle, 441,307; sheep, 417,577; goats, 27,618; swine, 177,188; total value, $15,112,233.

Honduras is a producer of all tropical staples. Her lands are suited for cotton, and she has an indigenous sugar-cane that yields two and even three crops a year. Excellent coffee is raised in abundance. Cochineal and grapes were produced in former years, but the Spanish government caused the destruction of all the grapevines to protect the wine interests of the mother country. The nopal is indigenous and abundant. Honduras tobacco has a well-deserved reputation, and indigo is produced in large quantities. Food staples are varied and abundant, as are fruits, woods, and medicinal plants. Agriculture is progressing; the country abounds in cattle, and nowhere in Central America is there a greater wealth of resources.

Salvador, Nicaragua, and Costa Rica are equally favored, and have within the last thirty years made great advances in agriculture. The great staples of Salvador are indigo, coffee, maize, sugar, and rice. The introduction of coffee culture was due to Juan José Mora, the president of Costa Rica, during his enforced absence from his country in 1860. Indigo as early as 1630 yielded 10,000 quintals a year; the production from 1791 to 1800 was 8,752,562 pounds, worth $2 a pound; the value of the crop of 1864 was $1,129,105; that of 1877, $2,146,423. The crop of coffee in 1864 was worth about $80,000; that of 1877, $2,115,669; and of maize in 1877, $2,786,433. The aggregate values of all the agricultural products of Salvador for 1876-7 were $15,448,794.

Nicaragua, Costa Rica, with the isthmus of Panamá, have in cultivation cacao, sugar, indigo, tobacco, cotton, coffee, maize, wheat, and other cereals, with plantains, and a variety of fruits in great abundance. The government has been alive to the necessity of developing agriculture, and particularly the production of coffee and tobacco. These countries possess also much natural wealth in the form of medicinal plants and cabinet and dye woods. Cattle are raised in considerable numbers, notwithstanding the scarcity of nutritious grasses in summer, and the plague of vermin, which torment the animals and cause the death of many.

Agriculture is and must continue to be the predominant industry of these nations so richly endowed by nature. If the people place the management of their public affairs in the hands of competent and trusty men, controlling themselves so as to banish strife, and devoting their energies to the development of the great variety of natural resources at their command, they will show their wisdom, and have their reward in the possession of a self-supporting, wealthy, independent, and happy country.

Richard Gird

CHAPTER IV.

LIFE OF RICHARD GIRD.

SOUTHERN CALIFORNIA—GENEALOGY AND PARENTAGE—FAMILY HOMESTEAD—EARLY TRAINING AND EDUCATION—MINING EXPERIENCE IN CALIFORNIA AND CHILI—RAILROAD BUILDING IN CHILI—ASSAYING AND PROSPECTING IN ARIZONA—INDIAN WARFARE—MANUFACTURING—DISCOVERY OF THE TOMBSTONE DISTRICT—THE TOMBSTONE MINES—THE CHINO ESTATE—DAIRY—THE CHINO SUGAR-MILLS—MRS GIRD—PHYSIQUE AND CHARACTERISTICS—OPINIONS—SUMMARY.

SINCE the time when a couple of railroad cars would have contained the entire population settled between San Bernardino and Fort Yuma, a wonderful transformation has occurred in the social and industrial aspect of southern California. Within little more than two decades the herder and cowboy have given way to the husbandman, the grazier to the horticulturist, and the scattered groups of adobe buildings, with streets unpaved and unlit, such as existed in the days of Pio Pico and his bland brother Don Andrés, to cities and towns with four-story business blocks of stone and brick, with electric lights, with steam and cable railroads, and all the appurtenances of this our latter-day civilization. Between 1870 and 1880 southern California more than trebled its wealth. Between 1880 and 1890 its population increased in five-fold and its aggregate wealth in ten-fold ratio. Tracts which in former years supported their thousands of cattle will now support their thousands of families when planted with fruit-trees and furnished with means of irrigation.

Take for instance, the Chino farms, lying in the counties of San Bernardino and Los Angeles, the property of Richard Gird, and containing in all some 50,000 acres. Of this, a large portion has been laid out in ten-acre lots, and on each of these lots a family can be maintained in comfort, for there is a perfect system of irrigation throughout, with artesian wells additional in many places, causing the earth to bring forth its fruit in such abundance as elsewhere is seldom witnessed. In China, it is said, he who digs a well in a barren place is worshipped as a saint. Then should Mr Gird be at least regarded as a public benefactor he having sunk a hundred wells imparting marvelous fertility to a large section of country. To sanctity however Mr Gird makes no pretensions having no desire to cover his failings by a parade of his virtues. But without further prelude, let us have the story of his life, and first of all, of his ancestry, for on biographical studies genealogy may cast a flood of light.

The name of Gird, if we can believe the chroniclers, is one of the few that have come down to us unchanged from the Norse nomenclature. In Normandy it is found in the old historic records, long antecedent to the days of William the Conqueror, by a member of whose invading army it was not improbably introduced into England, passing thence to Ireland, though never becoming, in the proper sense of the term, an Irish patronymic. Mary Hynde, the great-grandmother of Richard Gird, was a Wexford matron, and a lineal descendant of the Irish king by whom was first invited to that country a monarch of the sister isle. In this connection the following legend is still extant. A son of this Irish king was enamoured of a beautiful damsel of noble family, and the passion was returned; but by her father the maiden was coerced into marriage with a man of rank and wealth, one much older than herself, and for whom she had no affection. During her husband's absence at one of those grand hunting parties in which the Irish nobles delighted and still delight,the bride communicated with the prince, who came with his retainers and carried her away. Thereupon the husband and father, gathering their men together, set forth in pursuit. Being closely pressed, the young prince, in order to avoid capture, appealed to the English king for assistance, which was granted! and thus he bid defiance to his pursuers. Among those who accompanied the forces of the king was a member of the Gird family, who afterward settled in Ireland, and from whom are descended the Girds of America.

Sir Henry Gird, the great-grandfather of Richard, was a colonel in the British army, a man of exalted station, wealthy, cultured, and respected, one who in the discharge of his sternest duties as a soldier never forgot the dictates of humanity. Of this the following incident will serve as an illustration. Appointed to a command in Ireland in 1773, it became his duty to suppress a local insurrection, and for this purpose he led his well armed and disciplined troops against the insurgents, whose only weapons were scythes and sickles, pitchforks and shillalies. But not a whit were the Irish peasants daunted by the fate that confronted them, as threatened by an advancing foe within a hundred paces, with shotted cannon, fixed bayonets, and loaded muskets. Their courage challenged the admiration of the colonel, who like other gallant officers was a man preferring peace. Halting his men, he rode up to their lines, and calling the leaders about him, won their confidence, and gained a bloodless victory by inducing them to disperse.

About this time the two oldest of the colonel's sons, after completing their education in Dublin, passed over to England, partly on account of political disturbances, and also with a view to add to their other accomplishments the knowledge that can only be acquired by travel. On affairs of state their sentiments were somewhat at variance, one taking side with the English and the other with the Irish, though all the sons were filled with the noble aspirations for liberty which the success of the American revolution had spread throughout the civilized world. Especially was this the case with Henry, the grandfather of our present Richard. In his younger days an Irish patriot, and in his later life an American patriot, it was foreordained that he should play an important part in the land where his children and grandchildren were destined to stand among the foremost of its citizens.

It was in the closing years of the eighteenth century that Colonel Henry Gird determined to remove with his family to America; but first he sought the advice of President Washington, receiving in answer to his inquiries a favorable and most courteous reply. The letter which contained it is still preserved among the archives of the family. In 1795 he landed in Virginia, purchasing a plantation near the town of Alexandria, which adventure proving unprofitable, he opened there a flouring-mill and starch factory. Meanwhile Henry, who had learned in Dublin the business of printing and publishing, established in the same town a newspaper called the *Columbia Mirror*. If honest, faithful, conscientious work, united with ability of no common order, could have made of this journal a success, then would it have surely succeeded; but Henry Gird was at heart an abolitionist, and his views on slavery were expressed as fearlessly as, in later years, were those of Wendell Phillips and William Lloyd Garrison. Coming to this country from a land where slavery did not exist, though the subjects of George III were in some respects not far removed from that condition, he was sorely disappointed to find such an infamy so deeply rooted in a soil where freedom had been purchased by the blood of her sons.

It was not in the nature of the Girds to barter conscience for popularity or gain; nor could they be deterred from giving free utterance to the opinions dictated by earnest, heart-felt conviction. But, as editor and publisher of the *Mirror*, Henry Gird depended, in common with other journalists, on public patronage, and his labors in Virginia could be made so unprofitable that he would be compelled to seek other employment, or to betake himself elsewhere, and it was not long ere he discovered that he who would work reforms, especially in matters that affect the pockets and prejudices of the community, has but a thankless task. Especially distasteful were such sentiments as the following, published in 1796 in the form of verse, for like others of the family Henry was somewhat of a poet.

" But when Columbia's sons can strike the blow,
When they, who boundless liberty enjoy,
Can forge the chain, and guide the dart of woe,
They even religion's high behest destroy."

Hence it was that about the year 1800 Henry Gird removed to New York, founding in that city the publishing house of Gird and Stanberry, by whom was published a magazine, of which he assumed the editorship. A man of powerful intellect, with lofty purpose impelled by his strong convictions and vivid sympathies, he devoted his entire energies to his chosen field of letters, and erelong his health gave way under the arduous duties of his position. He died in 1812 and was buried in Trinity cemetery. If his views were somewhat exaggerated, as was apt to be the case with one whose youth and earlier manhood were passed amid monarchical institutions, his errors were ever on the side of freedom, and to his descendents he transmitted the strength of his convictions, and his broad humanitarian sentiments.

John Gird, the father of Richard, was a man of magnificent physique, an inch over six feet in height, erect, broad-shouldered, and with an average weight of more than two hundred pounds. A native of Trenton, New Jersey, where he was born in 1802, he began life as a school-teacher, and later became a farmer and dairyman in Herkimer county, New York, in which occupation he met with more than average success, owning one of the largest farms in the neighborhood, and having besides a goodly sum invested in bank stock and other choice securities. Like his father, he was an educated and also a self-cultured man, with a special aptitude for mathematics, a constant reader, especially of historical works. In youth he was religiously inclined, becoming a member of the methodist church, though never a sectarian, and in his later years entertaining liberal views on religious topics. He was public-spirited, as was shown by the school-house and church which he erected at his own expense in Herkimer county. Above all he was a man of stainless morals and of strictly temperate habits, using neither strong drink nor tobacco in any form. Possessed of rare firmness and tenacity of purpose, and of remarkable self-control, his character was in keeping with the physical powers which prolonged his life to the ripe old age of four-score years and nine.

To return to Richard Gird's maternal ancestry, of which mention has in part been made, his grandmother, née Smith, was a native of Long Island, where for three generations the family had resided, though originally among the Rhode Island colonists, receiving from one of its earlier governors a patent for land. At the time of the revolutionary war her father was the owner of a large flouring-mill, from the profits of which he acquired a competence, afterward falling into straitened circumstances through the repudiation by the government of its paper currency. Later he removed to central New York, accompanied by his daughter, then a widow and the mother of several children. It may be mentioned that when only three years of age this lady was wounded by one of the Hessian soldiery by whom Long Island was occupied after the disaster that befell the continental army. Whether the wound was due to accident or brutality is not recorded; but the scar which she then received was borne until the day of her death.

Without dwelling further on the lineage of Richard Gird, it may be stated that on the father's side it was of royalist, and on the mother's of puritan stock, thus giving to the present generation the somewhat strange but salutary blending of cavalier and roundhead. His maternal ancestors were among the earliest and most respected of Boston merchants, introducing there, through the importation of porcelain goods from China, a branch of commerce that had never before been attempted.

Laura King was the maiden name of Mr Gird's mother; her mother was the daughter of a physician named Anderson, a man of note in social and professional circles. Anderson took in marriage a sister of General Donaldson, who during the French war was one of the councilors of the governor of Massachusetts. Laura, an only daughter, was married to John Gird at the age of nineteen, and of this union ten children were born. She was a woman of medium stature, of slender and graceful figure, in features intellectual, in nature refined and spiritual. Reared in one of the leading families of Massachusetts, she received the best education to be had in a state that was even then world-famous for its institutions of learning. To the store of knowledge thus acquired, she added the choicest treasures culled from the pages of history; for to historic lore her tastes inclined, and many a long winter evening her children passed in listening to her readings from the great masters, simplified by her careful and lucid explanations so that the youngest among them could comprehend their meaning. The inane frivolities of society she held in just contempt, and in no society did she take such delight as in that of her husband and family. Yet in some respects she was the very antithesis of her husband; the one was the embodiment of sternness, and severity the other by the power of kindness training her children with all the strength of a woman's love to be just and generous to others, and striving to impress on them the worthy sentiments and the pursuit of a worthy ambition.

For generations the Girds have been known as men of high standing in the community, men of strong force and pride of character, of strong convictions, of undaunted courage, of rare intellectual endowments, and for the most part of rare intellectual attainments. Like the cavaliers from whom they were descended, they were noted for honor and courtesy, for their dignified courtly manners and their chivalrous conduct. Add to these graces a sturdy patriotism, the tenacity of purpose and deep religious convictions of the puritan stock, and in this interning tone of ancestry we have the alembic through which we may distill the character and delineate the career of Richard Gird.

The birthplace of Richard was an old-fashioned country house in Herkimer county, on the shore of Cedar lake, and at the head of the Susquehanna river. His natal day was the 29th of March 1836. There were, as I have said, ten children in the family, of whom the eldest son, named Henry, came to California at an early age, was successful as a gold miner, and after a varied career, settled himself in Sonoma county in 1854, where at the date of this writing he still resided. Another brother was at that date a resident of Sonora, Mexico, in charge of the ranchos of George C. Perkins and others, in which he was personally interested. A third, William, was in charge of a branch of Richard's business at Ontario, and a fourth, Edward D., after a brief residence in California having died at the old homestead in 1876. Of the two sons named John, one died in early youth, and the other was a graduate of Cornell university, where he displayed such proficiency in mathematics that the faculty, most of whom were graduates of Oxford, insisted on his entering that university where he was offered a sub-professorship which he declined. Of the daughters, Mary, the eldest, inherited all the literary tastes of her mother, excelling also in her knowledge of French. Ellen became the wife of one H B. Martin, of Chicago. Emma still lived at the family homestead in Herkimer county, and Lillian was laid at rest in one of those grassy churchyard graves, where no sound is heard save the ceaseless ripple of the Susquehanna, whispering, as with the low sad monotone of ocean, the requiem for the dead.

The home in which Richard passed the days of his youth was a roomy and commodious dwelling, now seventy years old at least, handsomely furnished in rosewood and black walnut, all of antique pattern, with straight-backed chairs and the grimmest of horse-hair sofas, grievous to body and limb, and suggestive of anything but repose. Here might be seen one of the choicest collections of relics belonging to the revolutionary period, gathered for the most part in Virginia, the former home of the Girds. Among other objects of interest was an invitation to dinner extended by General Washington to the great-grandfather of Richard Gird. Here also was a copy of the family crest, the head of a roebuck, to which animal is applied by some authorities the old Saxon word spelled variously geard, gerd, gyrd, and gird.

Attached to the homestead was a farm of moderate size, with saw and grist mills, and near by a village with its few scattered dwellings, its school-house and church, its postoffice, its single store, and its blacksmith's shop. Here Richard worked, as soon as he was able to work, attending the district school in winter, and in summer remaining on the farm. At fifteen, his father being disabled by an accident, he was placed in charge of his estate; and that he was equal to the task appears from his own description of these youthful days. "I rose early in the morning," he says, "and in rain, sleet, and snow attended to ten or twenty cows; then came home and had breakfast; and before going to school went out into the woods and cut logs. In summer I worked all the time. At twelve I had become a field hand. At sixteen, just before coming to this country, I remember going out into the field one day and cradling six acres of mixed barley and oats, which was subsequently verified by actual measurement. All this combined to give me a very robust physical constitution. One of my earliest recollections is a visit to the farm of my grandfather, who accompanied me to the top of a hill whence we could see all over the country. As I looked on the landscape, with its farms and farm-houses spread beneath us in what seemed to me an endless panorama, I exclaimed: "What a great big world this is!"

It was by no means an unhappy life that Richard passed on this farm in central New York, with its ceaseless toil and rigorous climate, its torrid heat in summer, and its long drear winters, chill and bleak as those which greeted the *Mayflower* pilgrims, to whose ancestry his mother's origin is traced. Amid such environment have been trained the hardiest of New England's sons, men to whom, more than to all others, their country is indebted for her physical, moral, and material greatness. "It was here that Waterloo was won," exclaimed Wellington, as he observed a group of Eton lads engaged in their robust and health giving sports. And looking at the honest toil of these New England yeomen, whose muscles and sinews have been hardened into steel by their stern encounter with the obstacles of nature, we might say, "It is here that Gettysburg was won." Here at least, if anywhere, has been worked out the problem of the survival of the fittest, for the sick and weakly perished, and in those who remained is embodied one of the highest types of which humanity is capable.

In his school days Richard was known as a bright, active, intelligent lad, full of boyish energy and boyish love of adventure, studious withal on the subjects that were to his taste, but at all times inclining rather to mischief than to sudy. "We were taught everything." he says, "that was useful to a man who had to fight his way in the world; history, geography, geometry, trigonometry, and a thorough English education. We had our spelling competitions, and there was considerable rivalry between the different families. The education we received was exceedingly good, and will compare favorably with the tuition of to-day. We did not have quite so much Latin and Greek perhaps; but we had other subjects that were more practical." All through life Mr Gird has been an omnivorous reader, with a preference for the more serious class of literature; and that this taste was inherited and not acquired is sufficiently apparent from the range of his studies, reminding us rather of a youthful Macaulay or Gibbon than of a farmer's son yet lacking some years of his teens. At an age when for most boys *The Pathfinder* and *The Last of the Mohicans* have more fascination than the choicest gems of philosopher, poet, or historian, we find him making a thorough study of *Burton's Anatomy of Melancholy*. At seven he had read three volumes of *Johnson's Rambler*; at eight he had exhausted the historical works in his father's library; and at ten, as he says, he had "read everything within reach." All these hundreds of books—for his father's library was of the largest and best selected in central New York—he read with appreciation.

As with other successful men, the most valuable part of his education was that which he gave to himself or received at home; for the parental training of the children was of itself an education better than school or college could afford. It was his parents' wish that Richard should engage in some literary pursuit; but for this he had no inclination. First of all he knew full well that literature did not pay, and he was not one of those who disregarded Greeley's warning not to betake himself to that calling through "dearth of potatoes." Moreover, though fond of study he was more fond of adventure, and for him the attractions of frontier life, such a life for instance as that of the argonauts, possessed an irresistible charm. Already his eldest brother was on the Pacific coast, and now at the age of sixteen Richard decided to join him. "Father," he said, introducing the subject somewhat to the consternation of his sire, "I am going to California." "Well," said the elder Gird, who was slow of speech, and a little chary of words, "how are you going to get there?" "I expect you to advance the money," quietly answered Richard. "Then," said the other, "you will never get there, for I certainly shall not let you have the money." John Gird remained immovable, whereupon the boy betook himself to his mother, who at first attempted to dissuade him, using that strongest of woman's weapons, a mother's tears. "But," said the lad, "mother, I shall never be anything here. I have made up my mind to go, and if father will not let me have the money, I shall go without it." After some further parley the mother yielded. "Well, Richard," she said, "I know that when you say you will do a thing, you will do it; you can go; for I feel that I can trust you anywhere in the world. I will see your father, and talk the matter over with him." The result was that his father handed him the sum of $1,500, first exacting a promise that he would not encourage his brothers to leave their home. A week later Mr Gird was en route for California.

It was toward the close of 1852 that Richard Gird landed in San Francisco, accompanied by two young Irishmen who had worked on his father's farm. In crossing the Isthmus at a time when the streams were swollen, one of them fell into the Chagres river, and would have been drowned had not Gird plunged into the water and dragged him forth. For this kindness the only return was, that when a few weeks later Gird was stricken with the Panamá fever, contracted perhaps through this very incident, the Irishmen deserted him. Nevertheless he survived, and in due time proceeded north and passed through the golden gate.

Remaining but a day in San Francisco, Gird set forth for the mines, walking over the ground where had been Sacramento immediately after the conflagration which destroyed the business portion of the city. The streets were wet and muddy; the few remaining houses were crowded, and, as Mr Gird remarks, "he was compelled to pay two dollars and a half for the privilege of standing up all night in a tent." A day or two later we find him at Coloma, where he was met by his brother Henry, who was mining at the Greenwood placers. Here he invested a portion of his means in claims adjoining those of his brother, intending at once to set to work. It was at this juncture that he was overtaken by sickness, from the effects of which he did not readily recover, and but for his brother's care would perhaps have never recovered. His sickness lasted until the spring, and even then his lungs were so weak that he was barely able to walk by the side of the ox-team provided by his brother for conveying him to comfortable quarters near the town of Healdsburg.

Here some months were passed, and in the autumn, being now restored to health, he began stock-farming in the Russian River valley, in conjunction with his brother. For several years the venture was fairly profitable, and Richard's share of the profits was further increased by judicious purchases and sales of land.

Having arrived at the age of twenty-one, he found that he had achieved a moderate success. He was not wealthy, but he was fairly on the road to wealth, and by nature and training was endowed with qualities more to be desired than wealth, with courage and self-reliance, with capability and persistance, and with the choicest of blessings a vigorous constitution, one that was never impaired by senseless dissipation. He had come to these shores with a fixed purpose in life, the purpose of making for himself a fortune and a name; and this he would accomplish unless some over-ruling power should stand in his path. He had inherited all his father's grim tenacity of will, and this he displayed even when stricken with fever at the Greenwood mining camp, crawling from his sick-bed to scrape from the rocks the first gold that he gathered in this western El Dorado.

In 1858, partly with a view to purchase copper lands, and also to examine its mines and acquire a more thorough knowledge of mining, he took ship for Chili, and passed some months in prospecting among the mineral ledges of the Andes. But the best of them he found already appropriated, and for the most part all but exhausted. The most valuable of the copper lands he found to be under the control of English capitalists, who were acquiring fortunes thereby. Of the country and its inhabitants Gird made a thorough and intelligent study, and was favorably impressed with both. But to him the prevailing system of peonage was abhorrent, reminding him of the former serfdom of Russia, the ancient villeinage of England, and of that curse now forever blotted from the soil of the United States, human slavery In some respects peonage in Chili was even worse than slavery in the United States, for the peons were held for debt and passed with the land, as firmly fixed thereto as the cattle and implements of husbandry.

Finding little encouragement in this field of action he obtained employment of Henry Meiggs, the railroad contractor; but this portion of his experience is best related in his own words. "I was prospecting in the Andes," he says, "as long as I could hope to strike anything; but meeting with no success, I was packing in with my blankets when I met one of Meiggs' engineer corps, and volunteered my services. My mining experience stood me in good stead, and soon I was placed in charge of a section. At a certain rocky point there was a very heavy piece of work, just the kind of work I was accustomed to; and in my section much better and quicker work was done than in any of the others. I also showed them a number of contrivances that were new to them, and began to be looked upon as a useful man. One day they had a wash-out, caused by the swelling of one of those terrible mountain torrents for which the Andes are noted. A portion of an iron bridge was carried away, and its place filled with bowlders and rubbish. They proposed to clear away the débris, move back one of the abutments, and rebuild the bridge; but after they had thought it over for a while, I suggested that they allow me to manage the business. I simply turned the obstruction into the bed of the river, and the river carried it away. This brought me to the notice of Meiggs, and I became quite an important personage. They began to think I could do almost anything; so that if I had wished to remain they would have given me any position that I desired."

In Gird's opinion Meiggs was one of the greatest of modern financiers. When the contract was awarded to him for building the Ferro-carril del Sur, his funds consisted of $300, together with a small amount obtained by pledging his watch and jewelry. With this as his capital, he assumed a contract the profits of which amounted to $2,000,000 or $3,000,000. The government was almost as poor as himself, but their bonds were negotiable, and on these he secured a large percentage in cash, together with a considerable proportion of the mortgage bonds. Then came success, the full measure of which often attends him whose first efforts have succeeded.

Early in 1860, Mr Gird set forth on what he intended to be a few weeks' visit to his home in New York; but again he was stricken with the Panamá fever, from the effects of which he did not entirely recover until the spring of 1861. Returning to California, he brought with him two of his sisters, one of whom became the wife of H. B. Martin, with whom he afterward formed a partnership in the hardware and machinery business.

In the winter of 1862, having previously made himself master of the art of assaying, he went to Arizona, accompanied by one Isaac Bradshaw, and taking with him all that was needed for the business of an assayer, especially with a view to determine the character of the ores. The mines he found to be fairly rich, but worked by the process of dry washing of which he did not approve. He then began prospecting for copper, and found some rich deposits in what were known as gash veins. In places the ore was so rich as to pay for shipping and from this he made a sufficient sum for further operations.

At the beginning of 1863 he planned an expedition into the interior; this he made with a single comrade, and was the first to explore a path from the Colorado river to Prescott, by way of Granite Wash. At this time travellers were compelled to make a wide detour on their way to Prescott, for Apaches were numerous and hostile, and the word had gone forth that no white man should pass through this region, which was their favorite hunting-ground. Thus it was not without risk or trouble that Gird and his comrade made their way to Prescott. At Granite Wash the Indians were in force, and at this point their journey was mainly by night, twenty or thirty miles being covered between dusk and dawn. At Weaver where a party was organized for a prospecting tour, their animals were stampeded, and the company left without means of transport, except a couple of old and jaded horses. Near by was a detachment of New Mexico militia, and these Mr Gird tried in vain to enlist for an expedition to recover their cattle. The company then started alone, and for six weeks followed the Apaches on foot; but the latter keeping out of reach, they returned to their camp at the head of the San Francisco river. Here in this wild and unexplored country they were detained by a heavy fall of snow, most of the time on starvation rations. Their worn out shoes were replaced by moccasins, except the case of Mr Gird, who had brought with him a second pair; on him therefore fell the task of hunting, for they had little but game to live upon. To such straits were they reduced, that a coyote roasted over their camp fire furnished the entire company with a repast.

Making their way to the nearest military post, the commander refused to supply them with food; but the soldiers, many of whom were California volunteers, served them with the first sufficient meal they had eaten for months, and afterward shared with them their rations, receiving nothing in return, for there was not a dollar among the entire company. Finally they reached the mining camp of Prescott, founded about this time by Joe Walker, an old pioneer who had piloted Fremont across the continent. In its neighborhood Walker and his comrades had discovered the Lynx Creek gold mine, and hence the founding of the present capital of Arizona. From a Jew storekeeper they begged for a small stock of provisions on credit, and being refused took what they needed, paying for it the following day with the money received from the sale of a deer, shot and carried into camp by Gird. This was the only money made by any of the company during the expedition. Soon afterward the party separated, and of its members, thirteen in number, all but three or four fell within a year at the hands of the Apaches

Returning to Arizona after a brief visit to San Francisco, Mr Gird joined a volunteer force organized for a campaign against the Indians, with Colonel Wolsey, and Gird as second in command, the latter also in charge of the commissariat. During this expedition, which lasted an entire year, the men adopted Indian tactics, fighting them their own fashion, surprising their camps, sleeping in the cañons by day, and for the most part attacking the foe under the cover of darkness. In all this protracted camping not a man was lost, though many hardships were encountered, and the operations of the force were retarded through the jealousy of the regular troops. Arriving for instance at Fort Goodwin, starving footsore and shoeless, they were refused supplies, and only at the request of Captain Harrover's company of volunteers were food and clothing procured. On the spot where now stands the town of Globe, some tribes of Indians were encamped, and on these an attack planned by a combined force of regulars and volunteers. But the regular cavalry arrived on the ground a day too soon, and that for no other purpose than to prevent the volunteers from sharing in the encounter. When the latter were disbanded, Gird resolved that he would never again engage in this kind of warfare, with its attended massacre, its brutal and hideous tragedies. Such scenes were not to his taste; for though a gallant soldier, he was ever on the side of peace. Certain it is that he did not covet such military renown as comes from the slaughter of defenceless and undisciplined savages.

When Arizona was organized as a territory by act of congress, Mr Gird was intrusted to make a map of the territory; and so thorough and accurate was his workmanship, that with slight modifications it has since been adopted as the standard chart, government surveyors appointed later for a similar purpose reporting their task as useless.

His map completed, Mr Gird resumed his prospecting and copper mining in Arizona, but with indifferent results. Returning to San Francisco, he joined his brother-in-law in the manufacturing business, including the making of engines and hydraulic pumps. At their establishment was fashioned what was one of the most powerful pumps in the world, capable of raising a column of water from the base to the summit of Mount Hamilton, a perpendicular height of nearly a thousand feet; and under his supervision were also built a dozen more of the first hydraulic elevators used in the city of San Francisco. Though fairly successful, the business brought with it more of reputation than of gain, for competition was active, labor and material were costly, and prices so low as to leave but the narrowest margin of profit.

Withdrawing from his partnership in 1871, Mr Gird returned once more to Arizona; for there the star of destiny beckoned him, and he never could abandon the idea that in the mines of that country his fortune was to be made. True, it was there to be made, but not yet. At Cerbat, in the mineral park, he prospected without success, and then accepted a position as assayer for the McCracken mine. But besides being a skilled assayer, he was also a mechanical engineer, and soon his services were in demand to erect the mills, machinery, and smelters for an adjoining claim. For years it had been an unprofitable venture, but under his management the mine was converted into a paying property.

While thus engaged, he made the acquaintance of one of the miners, named Schieffelin, whose brother came into camp one day with a piece of rock that was given him to assay. Finding it to be of good quality, he suggested that it might pay to work the ground from which it was taken. To this the other consented, on condition that Gird should accompany him and defray the expense of the outfit. So it was arranged; and soon afterward the three were on their way to the new location, passing through Tucson and Wickenburg to what was known as the Bronco house, built by an Austrian, and for many years a favorite rendezvous for smugglers. Here a furnace was erected, charcoal burned, and everything made ready for work. The neighboring mountain range was explored for several miles to the northeast, with the result that ore was found, assaying more than $2200 per ton. A hundred and sixty acres of mineral land were located, including among others the Contention, Goodenough, Great Central, and Tough Nut mines, the last being so called because of the difficulty of determining the bearings of the vein; and the Contention, on account of a dispute as to the interest of one of the partners. The news of the discovery was quickly spread abroad,and presently a camp was formed, and regulations framed by Gird and the Schieffelins. This was in the spring of 1878, But now came the question, what were they to do with their property? for their joint capital did not exceed $5000, a sum altogether insufficient to develop this remote and isolated district.

After some vain attempts to secure the coöperation of capitalists, the claims were bonded for $90,000. An expert was sent to examine them, and escorted by Gird he was conducted to the mouth of the shaft, near which was a pile of ore, unsorted and cast on the dump as extracted. "Well" said the man, as he looked at it with contempt, "if this is what you call ore, I should like to see the rock." Fortunate it was for Gird and his comrades that he reported adversely, wishing to interest his principal in other properties in which he was himself a shareholder. The mine which he despised, afterward turned out gold and silver by the million, proving to be one of the richest of all the Arizona camps. Finally arrangements were made with Governor Safford and others to advance the sum of $85,000, the governor and his associates receiving in return a one-fourth interest, leaving a one-fourth share for Gird and each of his partners.

To Mr Gird was entrusted the entire management of affairs; and proceeding to San Francisco he ordered his mill and machinery, himself preparing the plans. In the mountains some twenty-five miles from the camp, he built a saw-mill, conveying timber to the mines on sleds, made of rough lumber, which held together just long enough for the purpose required. Purchasing all water rights on the San Pedro river between Melville and the Sonora line, he built a dam and flume, securing ample water-power for his mill. All these operations involved a heavy outlay, and as it seemed to lookers-on without any prospect to warrant it. Men said that Gird had gone crazy; that he did not know what he was about. But he knew perfectly well what he was about. He was about getting a fortune by developing one of the richest mineral districts in Arizona.

It was on the 15th day of May 1879, when the Gird mill was put in motion, at first with ten, and later with fifteen stamps From that date until in the spring of 1882 when he severed his connection with the mines, the average yield was at the rate of $90,000 a month; and of this more than one-half was disbursed in dividends. From the first profits were paid, and that within sixty days, the sum advanced by Governor Safford and his partners, who afterward divided among them $2,000,000 in addition to the amount of their investment. His own interest Mr Gird disposed of for $800,000, and the Schieffelins for $500,000 each. Nevertheless, an equal division was made of the proceeds, according to their orignal agreement, Gird refusing more than his one-third share; though to him was mainly due not only the working and development of the mines, but the sale of his partners' interests. Whatever may be the faults of Richard Gird, and these I would neither palliate nor deny, greed and self-seeking are not among them.

Such, in brief is the earlier history of the Tombstone district, so named from the dismal forebodings of his friends when Edward Schieffelin, its discoverer, set forth on his prospecting tour from Fort Huachuca.

By these friends Edward was strongly urged to remain, as the region whither he was bound was swarming with bands of marauding Apaches "But," declared Schieffelin, "I am going to make a big find this time." "All you will ever find there will be your tombstone." Hence the naming of the district thus christened by Edward Schieffelin, with the consent of his partners. Up to the close of 1883 the total yield of that district exceeded $30,000,000, though its output largely decreased when Gird withdrew from the management of its principal mines. In 1891, partly through disasters by flood and fire, the camp was virtually abandoned.

Speaking of his mining experience in Arizona, Mr Gird remarks: "I went into mining as a means to an end. My intention was, as soon as I had made a fortune to get out of it and settle down on a farm. After my success in Arizona I was satisfied to let well alone; for I had long since decided that if once I met with reasonable success in mining I would never be foolish enough to run the risk of losing what I had made. We all know that mining is a most uncertain business, and one should not take too many chances. Yet I cannot say that I regret this experience. I was one of the first to cross the desert, assaying for two years, and doing my best to help the miners along. I studied mineralogy and soon became an expert assayer. I was also a thoroughly practical miner and mineralogist. I could go into a mine and do civil engineering work, mill work, mineralogical work; in short any kind of mechanical work came to me naturally. At this time I was working very hard, and for a whole year I labored and studied eighteen hours a day, allowing myself only six hours for rest. Habits of industry have been the sole cause of my success in life, and it is in these habits that Californians as a rule are most deficient. I have always been a hard worker, and never knew what it was to go into society merely for pleasure's sake; never knew what it was to be idle as much as two weeks at a time."

While assaying at these camps amid the Arizona desert, the question was often put to him, "Why did you remain there, working for less than you could command elsewhere?" His answer expressed the hope that was in him that "some day he would strike it rich." At length, after many failures, he struck it, and in no small measure was his success due to his liberal treatment of the prospectors, for whom his assays were made without charge, his only return being such information as might lead to better results from his own prospecting. Mr Gird went to Arizona with a few dollars in his purse. He left it with as many hundreds of thousands, and with what he valued more, the consciousness of having won the respect and good will of all his associates.

The intention which Mr Gird had formed of settling himself on a farm, he was not slow to carry into effect, though at first with no definite idea as to its location, except that he had always had a preference for southern California. Early in 1881, being seized with an attack of malaria, he returned to San Francisco, and when convalescent set forth on horseback to examine some of the properties that were for sale. Passing through San Bernardino county, he came to the Chino farm, of some 36,000 acres, where twenty years before he had camped on his way to Arizona. Looking down from the mountain slope on the beautiful valley beneath, he had then said to himself, "What a lovely spot; if I could have thirty acres of that land I would settle down and live there forever." Little did he think at the time that he would become the owner of those thirty acres, and of more than thirty thousand besides. After some negotiation, and the delay incidental to securing a title, the purchase was finally consummated. Thus did Richard Gird fulfill his long-cherished ambition of securing what he modestly terms "an acre or two of land."

The Chino farm is one of the choicest of all the garden spots of southern California, resting among the broad and fertile valleys of San Bernardino and Los Angeles, and encircled by wooded dells and hills of graceful contour, above which tower, to the height of 11,000 feet, the snow-girt ranges of the Sierra. Here is the home of our citrus and deciduous fruits, of the vine, the olive, and the fig, of the almond and the walnut, of flowering shrubs and shade-giving trees, presenting one of the fairest landscapes on which human eye can rest. Situated partly in the southwestern corner of San Bernardino county and extending over into the county of Los Angeles, the estate is some twenty-five miles from the city of San Bernardino, about thirty-five east of Los Angeles, and adjacent to the towns of Pomona and Ontario. The following is, in brief, the history of this well-known rancho.

In March 1841, when California was still a part of the territory of Mexico, a government grant of 22,234 acres, called the Rancho Santa Ana del Chino, was made to Señor Antonio M. Lugo, a Mexican of distinction and alcalde for the department. Some two years later 13,366 acres adjoining on the northeast were granted to Isaac Williams, Lugo's son-in-law, under the name of Addition to the Rancho Santa Ana del Chino. The first grant was patented by the government of the United States in February, and the second in April 1869. Many are the historic incidents connected with the rancho del Chino. Here the early immigrants to California by the southern route found a resting place for themselves and their cattle. A large book which Mr Gird has in his possession contains autobiographic accounts written by travellers who halted there in their trip across the continent—narratives of Indian fights, and of the privations and dangers encountered. Here also was the scene of some of the earlier skirmishes between the native Californians and the American invaders, one of the hottest contests taking place under the walls of Lugo's adobe dwelling.

Both the grants were included in the purchase made by Mr Gird in 1881. In that year he took possession of the estate, and at once began to improve it, enclosing it with a barbed wire fence at a cost of $80,000, and stocking it with cattle, of which, in 1891, he had more than 4,000 head, and of horses about 800, all blooded stock, and of the choicest strains, among the latter being several colts sired by Electioneer and other famous stallions of the Palo Alto stables. He has since acquired by purchase additional tracts, until his place now includes as I have said nearly 50,000 acres, of which 12,000 are reserved for his homestead. Of the remainder, 23,000 acres have been surveyed into ten-acre tracts, each fronting upon a road. The soil of this portion consists of a rich dark loam, about 10,000 acres being adapted to oranges and 3,000 to raisin grapes; while other sections are suitable for the culture of the olive, for deciduous and small fruits, and for vegetables. All this part of the rancho is available for tillage, being free from rocks, barrancas, and brush. A gentle slope of from twenty to forty feet to the mile renders the drainage perfect, without subjecting the land to the danger of washing. A noteworthy feature is the amount of moisture which the soil retains. The neighboring mountains have a rainfall of forty-five inches a year, or sufficient to fill a basin 400 square miles in area and four feet deep. Much of this water finds its way underground to the Chino valley, and is absorbed by the land, which consists largely of what is termed moist land, requiring no irrigation. In the valley the average rainfall is twenty inches; and for fifty years or more no serious drought has occurred on this land, which even in the disastrous season of 1864 carried its stock with inconsiderable loss. In Chino creek, a never failing tributary of the Santa Ana river, whose course lies through the tract, there is a plentiful supply of water; at a depth of six to eighteen feet pure soft water is found; and of the one hundred artesian wells, there are none whose depth exceeds 300 or 400 feet.

As in other portions of southern California, it may be said that in the Chino valley winter does not exist. In January the average temperature is 52°; in July it is 68°; extremes of heat and cold being alike unknown. Here is no such gradation of seasons as is found in eastern or European countries; for one season glides into another almost without perceptible change, except in the tints of foliage and vegetation from the russet brown hues of summer to the brilliant green of winter. Here are running streams whose waters never fail and never freeze; here the orange tree is untouched by frost, flowers blossom the whole year round, and the cultivation of the soil is continued throughout the winter months. It is in truth a climate worthy of southern California, one where June and December meet, where there is nothing to interfere with comfort or compel cessation of toil.

Almost through the center of the estate runs the Pomona and Elsinore railroad now in process of construction, forming a junction at Chino with the Chino valley railroad and with a branch of the Southern Pacific, the main line of which skirts the northern line of the estate, and near by are the stations of two of our transcontinental thoroughfares. The town-site of Chino is connected by a narrow-gauge road, soon to be extended to Anaheim landing, with the systems of the Southern Pacific and the Atchison Topeka and Santa Fé. Of all the ranchos subdivided within recent years there are probably none where the farmer and fruit-raiser can find in addition to all the other superior advantages such facilities for transportation.

The town of Chino occupies one of the most beautiful locations on the tract, with spacious streets and park reservations, and with an abundant supply of the purest water. For irrigation and for protection against fire, water is conveyed under a pressure of 150 feet in quantities sufficient for both of these purposes. In 1891 there was connection by telegraph and telephone through Pomona and Ontario with the systems of southern California. There were scores of neat and commodious residences, and several thriving stores; there were post and express offices, banks and hotels, newspapers, and public schools, with all the adjuncts pertaining to a thrifty and flourishing settlement.

Apart from the town, it is estimated that each of the ten-acre subdivisions of the Chino tract will support a family in comfort, or that two thousand families can be supported on the portion already surveyed. Even on the driest lands, orchards and vineyards thrive without irrigation, while the size of the rancho enables the purchaser to select his land with a view to some special line of cultivation, whether for cereals, alfalfa, or vegetables, for vines, or for citrus or other fruits. Estimating the profits at the average of $100 per acre, and bearing in mind that there are thousands of acres of moist land that can be made immediately profitable—as by raising small fruits, alfalfa, or vegetable—it will be seen that the capabilities of the soil have not been exaggerated. Of vegetables there were grown on this farm, in 1891, the tomato, cabbage, potato, radish, and lettuce; of fruits the orange, lemon, lime, apple, peach, nectarine, apricot, plum, pomegranite, quince, persimmon, blackberry, strawberry, raspberry, currant, cherry, and grape; and if there be any other fruits than these, such as flourish in temperate and sub-tropical climes, then were they grown in the Chino orchards.

On another portion of the rancho is the dairy farm, with 200 to 300 cows, and in the season a daily product of 100 pounds of butter. The De Laval cream separator is the one in use; and here is perhaps the only dairy on the Pacific coast where marble slabs are used for fashioning the butter into shape. A feature of the dairy is the water wheel used for churning purposes, adjusted by Mr Gird himself; but as to the workings of this dairy I cannot do better than to quote the description furnished by one of his employés. "As the cows are milked," he says, "the milkers walk up one pair of stairs and turn the milk into an iron vat, which leads into the separator. The arrangement of the separator is as follows: The milk as it comes from the cow is placed in the milk vat and delivered by means of faucets into the funnel at the top of the separator and through a small tube into the rotating vessel, which runs at a velocity of about 7,000 revolutions a minute. To the bottom of the vessel is soldered a thin wing, which forces the milk to follow the rotation of the vessel. As soon as the fresh milk enters the rotating vessel an instantaneous separation takes place. The heavier portion, or the skim-milk, is thrown to the circumference, and forced up a bent tube, whence it is delivered through an aperture into the lower of two tin trays, or covers, which is provided with an outlet pipe. The cream remaining near the center arises around the outside of the funnel into which the milk was first introduced, and through a small slot in the cylindrical upper part of the rotating vessel into the upper tin cover, whence it is discharged through an outlet pipe. The opening of the upper part of the rotating vessel is regulated by means of a screw. To increase its speed the rotating vessel is mounted in such a manner that it acts on the same principle as the spinning-top. For this purpose, and in order to transmit by friction the rotation of the driving spindle, a wooden cup is inserted in the same, and the corresponding spherical end of the upper spindle rests in this cup. Around the neck of the upper spindle there is a bearing, surrounded by an elastic packing, which allows the spindle with its vessel when rotating to take its natural perpendicular position. The milk is run out through a hose into a large trough into the calf pasture, and the calves get the milk while it is still warm. This separator is run twice a day ; it is only capable of separating for about 300 cows, and we have seldom less than 200 cows in the dairy. For some tastes this separates the cream too quickly ; but it can easily be regulated so as to have the cream just a little sour. This is a Swiss invention, introduced in 1874."

But perhaps the most interesting feature is the beet farm and sugar factory and refinery where the manufacture of beet sugar is conducted on a larger scale than elsewhere in the United States. Hitherto such ventures had been but moderately remunerative, as in the case of the Alvarado, Isleton, Los Angeles, Soquel and other factories, though in occasional years returning considerable profit. To keep such a mill in operation, it was said, during the season of twelve months, would require 50,000 tons of beets, at a cost ($4.00 per ton) of $200,000, while the expenses of management would be so great as to leave but a narrow margin for profit and interest on capital. Such was the theory of the German manufacturers in whose hands this industry was mainly centered, but it remained for Mr Gird to show that under improved methods and on a large scale this branch of enterprise was capable of vast development.

In 1890 the Chino valley beet sugar company was organized under the direction of Mr Gird. In August of the following year the plant was completed; and on the twentieth of that month the machinery was set in motion by Mrs Gird, who on this occasion delivered a speech, the neatness and brevity of which might well be imitated by those who preside at such ceremonies. "With the turning of this valve," she said, "to start the machinery of this great industrial enterprise, I now invoke upon it the kind auspices of good fortune. May prosperity and happiness attend the pathway of all interested or concerned in it, and may long and useful lives enable them to cherish the memory of this day."

Though the control of the factory was assigned to the Oxnard brothers, with Henry Oxnard as president of the company, to Mr Gird is due some valuable inventions and improvements conducive to the success of the enterprise. By him were fashioned the machines for sowing beets, and the wagons for collecting and delivering them, each fitted with a derrick for hoisting the crates as they are filled, and by a simple but clever contrivance reversing them and discharging their contents. Each wagon was made to contain about three tons of beets, and when loaded the entire train was hauled by steam power to the mill, where it was but one man's work to unload it; for the wagons were perfectly balanced in the center, and by withdrawing a bolt could be emptied from the side with but slight expenditure of power. Thus, during the season of 1891 were delivered to the factory, at the rate of one ton in two minutes, some 300 tons of beets a day. The wagons were fitted with 13-inch tires, to prevent the wheels from sinking into the ground, and by the same traction engine by which they were drawn a dozen of the plows could be worked. Others of Mr Gird's inventions were a special plow for loosening the soil, and a knife for cutting the beets, preferred by all his workmen to the one before in use

The saccharine qualities of the beets is tested by an instrument called the polariscope. After being clarified to crystal clearness by the use of sub-acetate of lead, the juice is placed in a metal trough, and the degree of sweetness determined by the use of lenses, through the deflection of polarized rays of light. But the farmers are also permitted to make their own tests, apart from those of the factory, and for this purpose the services of a chemist, engaged at the expense of Mr Gird, are always at their disposal. Thus far both farmers and manufacturers are satisfied with the result; and the company has been long enough in operation to demonstrate the fact that a new and permanent enterprise, one affording employment to hundreds of farmers and operatives has been added to the industries of southern California. Of the 6,000 acres of beets under cultivation in California in 1891, about 3,000 were on the Chino farm, 2,000 near Watsonville, and 1,000 near Alvarado. Here, at this date, were the only large beet-sugar factories on the Pacific coast. With a total capacity of 550 tons a day, it is probable that the Chino factory, which already makes nearly one-half of the beet sugar manufactured in California, will produce even yet more largely in the future. This factory is not only the largest but probably the best equipped in the United States, with a water supply from artesian wells, and with machinery of the most improved and recent pattern imported from Germany.

A serious drawback to the Chino estate is the exorbitant rates exacted by the Southern Pacific railroad, preventing its owner from working the valuable mineral deposits with which it is lavishly supplied. On this land is a wide ledge of the finest grade of bituminous rock, which can be placed on the cars at $4.50 per ton; but at the prices demanded by the railroad company it can barely be shipped at a profit.

In taking leave of the Chino farms it may be mentioned that Mr Gird has expended more than $200,000 in boring artesian wells to a depth from 100 to 900 feet, though as I have said much of the land is well supplied with natural moisture. In his extensive alfalfa fields, for instance, no irrigation is needed; and yet in some portions as many as six crops a year are produced. The entire estate consists of valley lands, and all of the choicest of the valley lands in southern California. On one of its fairest sites is a neat and tasteful family residence, near it an orchard of mulberry trees, with beds of chrysanthemums, forming one of the finest collections in the state; and near to the orchard an artificial pond, covered with white and colored lilies, planted by Mrs Gird, among whose characteristics is a love of all that is beautiful in nature.

It was while attending school in San Francisco that Mrs Gird became acquainted with her future husband. She was but a young girl at the time, some twelve or thirteen years of age, and, as she relates, was indebted to him for assistance in preparing her lessons. Mr Gird was then residing with his two sisters, one of whom was unmarried and the other the wife of H. B. Martin, in partnership with whom he was engaged in the manufacture of machinery. The Gird marriage took place on the 3d of January 1880, at which date Mr Gird's fortune was assured, and in part already realized from the yield of the Tombstone mines. The first eighteen months of their married life were passed at Melville, Arizona, where were the quartz mill and reduction works, and these were among the happiest of their experience. The settlement was one of the most orderly in all the territory, and its peace and prosperity were undisturbed by the vice and dissipation, the drinking and gambling common to mining camps.

Jeremiah McCarty was the name of Mrs Gird's father, and that of her mother, Nellie Currier. Marrying young, they settled in the township of Brewer, Maine, on the bank of the Penobscot river, the husband removing, soon after the gold discovery, to California. There he was followed, some years later, by his wife and twelve children, whom, however, he did not live to see, his decease occurring on the eve of their departure. He was not a wealthy man, but well to do, receiving a steady, if moderate income from his business of teaming and draying, to which he added at times that of ship-building. Among the vessels which he constructed was the *Golden Rocket*, with cabins specially prepared for the members of his family, who arrived on these shores after a six months' voyage round Cape Horn, bringing with them their furniture and supplies.

Of Mrs Gird I may further state that her helpful hand is felt not only in the management of the household, but at times in the affairs of the estate, so far at least as advice is concerned; for she is thoroughly acquainted with the condition of the business, and in case of need could readily assume control. Yet there is nothing in her nature partaking of the masculine element; there are none whose tastes are more refined, or to whom have been granted in greater measure the graces of womanhood. One thing only is wanting at her home on the Chino farm, and that is the warmth and sunshine which only the presence of children can give, but whose place will in the end probably be filled by some great charity.

At the age of fifty-five Mr Gird is still in the early autumn of life, and let us hope with many a long year of usefulness before him. His physique is that of a man to whom should be granted length of days, with a compact and sturdy frame, some five feet ten inches in height, and an average weight of two hundred pounds. His hair is dark, but tinged with gray, and his eyes of a bluish cast, their expression thoughtful and penetrating. In manner he is quiet and modest, without any trace of ostentation, self-contained, and in himself a silent but powerful force, steadily working out his ends in the face of obstacles that to men of more common mould seem insurmountable, with a courage and persistence that know not how to yield. He never lost confidence in himself, never lost faith in the ultimate result, however dark at times the prospect. No matter how adverse the conditions, he would carry his load of business cares such as to others would appear incredible, with calmness, with evenness of temper, such as becomes a strong man. Add to this his rare executive ability, and his facilities for planning and personal discretion, and we may understand how he can accomplish such tasks as would be deemed impossible even by men who themselves are gifted, with no small powers.

Throughout his career Mr Gird has been a student, a thorough investigator, probing to its core the question which occupied him, and never resting satisfied until he had made himself master of the subject. As a mineralogist he has more than a local reputation, with a thorough practical training and life-long study of this science. Taking in his hand a fragment of quartz, he will declare its quality with the nature of the ledge from which it was taken ; from a shovelful of earth he will determine the character of the soil whence it came, for what crops it is suited and what may be needed as fertilizers. As a naturalist he inquires into everything, seeks the why and wherefore, and his conclusions are seldom wrong, and always intelligent. He is essentially a progressive man, improving and developing his property as much from the public utility point of view as for advantage to himself. Purchasing a piece of machinery, for instance, he will make himself master of its principles, will consider where it can be improved and always experimenting, is ready to give a trial to whatever may promise improvement in methods of farming or manufacture. From youth a persistent reader, he has acquired a vast fund of information, and on the topics of the day, or of days gone by, there are few whose conversation possesses more of interest. He is, moreover, a deep thinker, and if his views are somewhat radical, especially on religious topics, they have at least the merit of originality. A man of strong attachments, he will stand by his friends to the last, often fighting to his own disadvantage the battle of the weak against the strong For what he considers his rights he will also fight to the last, though willing to concede what is due to others at whatever cost to himself. Yet he is by no means an aggressive man ; rather is he a man of genial and social temperament, large-hearted, sympathetic, generous, and possessed of the finest sense of honor.

Among other characteristics is his remarkable coolness, as was instanced at the earthquake of 1868, the severest ever known in San Francisco Strong men ran panic-stricken into the street, and among them the employés of Mr Gird, to whom it seemed that the floor was giving way beneath them, while he himself remained at his task, as though nothing unusual had happened. While working one day at his lathe, his thumb was caught in the running gear; but though suffering the acutest pain, he quietly turned to one of his men and without moving a muscle of his face, said, "Charles come here; just turn it back while I get my thumb out." Still another instance of his composure was during a fire that occurred at the Chino mills in 1889, destroying the machine and blacksmith shops, the carriages, mowers, ploughs, and all the agricultural machines and implements. It was three o'clock in the morning, and the men were striving their utmost to save what they could from the flames; but no risk of life would he permit, declaring that the lives of his men were more valuable than all the property in the world. While others wept like children he showed not the least emotion. "Grieving will not bring back what is lost," he said; "let us go home." And returning to the bed he had left, "in five minutes," says Mrs Gird, "he was fast asleep." Awaking some two hours later, he set his men to work. Before noon a temporary building was erected, and within a few days scarcely a trace of the disaster remained

To his careful and strictly temperate habits he owes much of his success in life. At six in the morning he is ready for his daily task, and at eight he retires, taking meanwhile a noontide siesta of an hour and a half. His diet is of the plainest, and he uses neither tobacco nor strong drink, except on rare occasions a single glass of wine. Often has he persuaded others to abandon the habit of drinking and smoking, and many are those who have thanked him for his advice, and received his approval for their abstinence and self-command. Except for a slight catarrhal affection his health is good, though suffering some few years ago from the effects of exposure and of unwholesome food and water during his early mining experience in Arizona.

All his life long he has been essentially a man of affairs, a man of his own affairs, giving little heed to the affairs of others, and still less to matters political. From office-holding ambition of any kind he is entirely free, refusing even the nomination for congress, or at least making no effort to secure it, when fairly within his reach. A member of the republican party, he was present at the convention whose choice fell on Benjamin Harrison, and later accepting the position of delegate, held some discourse with the man who is now at the helm of state; but with that conversation as he relates, he was not very deeply impressed.

And now let us hear Mr Gird's opinions as to political, economical, social, and other topics; for in the views of one who has travelled so far and to such excellent purpose, a man possessed, moreover, of the ripe experience acquired by fifty years of study and observation, we may hope to find something that is worth the hearing. And first of all as to the tariff. This he considers a twofold question, one involving two distinct propositions: first that of finance and revenue for the needs of the government, "which," as he remarks, "can be managed by any competent financier, and involves no question of principle to be handled by a philosophical statesman. The other is strictly a question of principle, comprising the obligations and financial status of the nation. With nations, communities, and individuals, the same natural law of self-protection holds good. We have by conquest and inheritance come into possession of a vast virgin country, with its natural resources unimpaired, isolated from the older civilizations by two great oceans. We are neither hampered by the traditions nor weighed down by the necessity of maintaining ourselves to the full extent of our resources, against the physical aggressions of our neighbors. We are therefore in a position to carve out for ourselves a destiny among the nations, and this it is our duty to do ; but it cannot be done unless we take prompt and decisive measures to protect ourselves against all those influences that are now dragging down the nations of the old world.

"While separated geographically by the Pacific ocean from the ancient civilization of the Tartar and the Mongol, and by the Atlantic ocean from the more modern civilization of the Aryan-European races, still with our modern improvements in transportation and navigation, these two oceans are but a neutral highway for the introduction of the peoples and products of those nations. Therefore if we do not wish to come down to the dead level and become a trap of those nations, with their corruption, misery, and misrule, we must erect a commercial barrier to protect ourselves, not only against their products, but also against the immigration to our shores of their disturbing and vicious elements. We should not only dictate as to what we are to purchase from abroad, but also as to who shall come from abroad to be citizens of this country.

"Above all let us beware of commercial greatness. It begets the acme of human greed, and is the destruction of patriotism, and of that intelligent interest in national affairs which should characterize the American citizen. The lesson of history is that commercial prosperity is the forerunner of a nation's downfall. We cannot then be too careful to keep within our borders to the fullest extent possible our own financial and industrial resources ; for in them is our only hope of saving this young and prosperous nation for even a reasonable time from going down in the general crash that awaits the nations of the old world. Policy in political exigency is not statesmanship. One twists and turns the exigencies of the present to suit the selfish requirements of the time; while the other looks to the building up of a grand and stable national foundation, based upon the honesty, virtue, and prosperity of the people. To this end, from the recorded experiences of past nations we can deduce those principles that have been found most conducive to the stability, welfare, and prosperity of the nations that have preceded us, and by making a wise use of them, help to erect for the time and place in which we live an edifice of national prosperity, founded upon the true principles of human intelligence and action.

"The question of the tariff involves one of commercial activity, which necessitates the exchange of commodities. The position of the United States of America is peculiarly that of an agricultural nation. The commodity, therefore, of which we have the greatest surplus, is the product of our extensive virgin soils, or of the life sustaining products. The grains which are produced in this country and shipped abroad permanently impoverish our soil to that extent; and in this exchange of the food producing elements of the soil for commodities from abroad, the balance is continually against us, inasmuch as what we have taken from the soil never will or can be returned. The nation and the people are thus to that extent impoverished for all time. The individual who plants himself on the virgin soil of our western plains or prairies, raising wheat for foreign export without fertilization as long as the soil will produce the grain, is, in the community in which he lives, the enemy of mankind. The importation of foreign products as the result of the non-protective policy, stimulates and increases this unnatural impoverishment of the country.

"This is a phase of the tariff question which has never yet, to my knowledge, been taken into consideration by either the statesmen or financiers of this country, and in it lies a greater element of danger than in all other considerations to come. The deserts left by the ancient civilizations of both the old world and the new, bear solemn and eloquent testimony to this fact. It is a lesson too well known to be repeated, that he who takes away from the soil must again return to it the elements that he takes away; otherwise the soil soon fails to bring forth the products that have been grown upon it. The exclusiveness of the Chinese nation, and their extreme care in this respect, have enabled them to sustain an enormous population for these many thousands of years; and if they are not the coming people of the world, they are certainly in such a condition of national vitality as to exist for many hundreds of years to come, principally because they have fostered economically the natural resources of their land. We as a people, on the contrary, have squandered with lavish hands. The result is, and will continue to be, that the older states, which in times past have produced an abundance of wheat for their own population as well as for export, must receive their breadstuffs from the virgin states farther and farther west, whose soils will also soon be exhausted of their wheat-producing properties; and before many decades have passed, wheaten bread will be a luxury in this land. Therefore by legislation, and by every other means that a powerful and patriarchal government can use, this result should as long as possible be deferred, if not entirely prevented. In extent of territory and diversity of climate we are a nation of such grand proportions that we can produce all our needs within ourselves. All that is necessary is for us to understand and accept this as a fact, and the result will be that we will be the most envied of the nations of the earth. It is not so much the amount that we individually pay for what we require, as the amount that we are able to pay, that enables us to supply our wants with profit to the producer and without disaster to ourselves. The higher the prices of commodities and of the labor that produces them, the more prosperous will be all classes of the nation. That condition should always be the one that we should strive for and maintain. The only manner in which it can be done is to protect ourselves not only by a tariff sufficient for the needs of our government, but by a prohibitory tariff sufficient to shut out the products of those communities where the necessaries of life compel them to labor for a pittance, and where the products are sold at a correspondingly low figure."

As to the relations of capital and labor Mr Gird remarks: "One of the most troublesome, although not the most dangerous, of any of the questions of the hour, is the spread and influence of socialistic and communistic ideas. These agitations are not really of a dangerous character, because they run counter to an absolute and well-defined natural law, implanted in the human mind and character, namely, the principle and desire of individual accumulation of property and substance. This desire can never be overthrown until, perhaps in the long distant future ages, the human race shall have outlived its natural barbaric conditions. The desire of individuals to accumulate and hold property is as positive and unchangeable as the instinct of animals that have the same habits. Counter to and in opposition to this law, is the constant and unfailing desire of the human mind in its present transition state to acquire better and more happy social conditions. It is a sad reflection on the partial and imperfect education of the people that what we call our highest education does not make people morally better. It may make them wiser and more powerful to control the forces of nature, but certainly not more moral in their tendencies. It may refine, but it does not eradicate. If we were not convinced that our present state of education is one-sided and partial, it would be a very discouraging outlook for the future; but we cannot but believe that when education shall mean a full development of the human faculties and forces, this will be changed, and that in its place will come a new and well-defined principle of morality, which will become a distinctive influence with the human race, making people both better and wiser.

"The organization of either labor or capital to control or fix the value of products is destined to be a lamentable failure. The law of supply and demand, however it may be strained or thwarted by combinations of capital or associations of labor, will and must eventually regulate all. This rule is as inexorable as the law of gravitation. Whatever inconvenience, whatever trouble and anxiety these combinations of capital and labor may cause, we may rest assured that they are only transitory, and are to be considered only as a phenomenon of society organizations. All associations of individuals, secret or otherwise, that have for their basis the control of their members in even the most limited degree, are not only pernicious to the welfare of the community but dangerous to the government. The object of such organizations is to control members for selfish ends, destroying personal liberty of thought and action, to the detriment of those who do not associate with them in any way; while at the same time it tends to destroy that personal independence of thought and action that can exist only under conditions of perfect liberty, and to the exclusion of the laws of the land: and while it is only temporary in its effects, it must nevertheless be considered and controlled, as not only being a violation of all natural law, but of any wise system of human regulation."

Mr Gird's opinions as to the proper sphere of government, and the duties and responsibilities of citizens under it, are expressed by him as follows: "Aggregations of people called communities and nations can only exist by the adoption of regulations that we term laws, which control the conduct of each individual toward others. These regulations should be based as nearly as possible upon the execution of the wisest interpretation of natural laws, supplemented by the most thorough aggregation of rules deduced from human experience. This control should be so absolute, unrelenting, and powerful, as to make it impossible for even the most insignificant member of society to transgress it. The tendency is and must be that this nation will not only increase its power to control, but also such a surveillance and insight into the daily actions of its citizens as will compel each person to respect the liberty of his fellow, and to control his own actions and affairs inside of that sentiment that 'one man's liberty ends where another's begins.' The only results of these combinations of capital and labor which we have been considering will be a stricter interpretation of the law, and a sterner enforcement thereof. We are fast approaching the time of police surveillance and standing armies. Indeed, it would be better if we now had a reasonably organized arm of the government to uphold the execution of the law, which has been so long defied that it is beginning to be looked upon with contempt.

"In a republic, the duty of a minority is peacefully to submit, waiting the time when its principles, if they should prove right, shall be adopted. Mercy to a vicious minority is a sin against the commonwealth, an evidence of lack of governmental control, a proof of weakness or want of wisdom.

"As a stream cannot rise above its source, so a government based upon the will of the people cannot be expected to be wiser and better than the best expressions of that will. It is therefore all important that the standard of the individual citizen should be raised to the highest possible level of the general intelligence of the time in which he lives. This consideration has been too much neglected in the past. It would seem wise and necessary that the standard of enfranchisement should be based upon an examination as to the qualifications of every individual who is to have a voice in the government; in order that those who are found possessed of the highest qualifications may be entrusted with the guardianship of the future; and so that each one who shall have been found worthy of enfranchisement shall be able proudly to say: 'I am an American citizen.' There can be no valid reason at this stage of the republic for permitting any person born on a foreign soil to have any voice in the government. The best and wisest of Americans should rule America."

Several of these ideas, especially the one of an aristocracy of merit, though seldom expressed, are worthy of consideration, especially at a period when an aristocracy of demerit appears to have its hands upon the reins of government, an aristocracy composed of the worst elements of the nation, together with the refuse and offscouring of many others.

With regard to the subject of a revelation and of the principles of natural religion, Mr Gird holds agnostic opinions, as does so large and increasing a number of persons in these times. He says: "I am a religious sceptic because there is not proof enough, measured by the ordinary rules of evidence, to convince any untrammelled mind of the truth of the so-called revelations, miracles, and dogmas of the bible, and of the religious beliefs that have grown out of it. In view of the grand phenomena of nature, the idea of a personal God appears to me childish and ridiculous. To my mind there is absolutely no proof of the immortality of the soul; there is absolutely no reason why men should be considered as exempt from those natural laws that govern the rest of animate and inanimate nature, with relation to which the idea of a carnal or spiritual resurrection is not only inconceivable, but revolting."

Concerning Christ, and the practical results to the world to be expected from a conscientious following of the philosophy of life he taught, Mr Gird also holds views that are seldom expressed, although they are perhaps held by more persons now-a-days than one would suspect: "If Christ were on earth to-day, living as he did and practising his teachings, he would be sent to an asylum as, to say the least, a monomaniac. The example of his daily life is as repugnant to the right standard of good citizenship as his philosophical teachings are to that of sound and effective morality."

On sociological and philosophical questions his attitude is as follows: "Wisdom is the deduction through long ages of what human experience has taught is best and right, conformable to human necessities and natural requirements. The standard is constantly changing, as the results of experience accumulate. Its control of human affairs is the science of statesmanship. Our debt is to the past; our duty to the future. Retrogression only comes from the degeneration of the people. The evolutionary law of the survival of the fittest must not be transgressed. On this shoal, strewn with the wrecks of the past nations and people, we are in danger of being driven. The law of heredity is ignored. But the race must be continued and improved by the best specimens of its members, or go backwards,—there is no standing still. Let us drop superstitious fallacy, and be governed by the best interpretation of natural laws that recorded experience has thus far been able to formulate, in order that the growth of national life may ripen into glorious manhood; and at the same time let us be prepared for that inevitable decline that comes in the changes of time alike to all things, proud that we have existed as a grand example for nations yet to come."

"With regard to the disposition of the insane: I am very radical on this point. I believe that the vicious, criminal, incompetent, idiotic, and all classes of people who are not a benefit to the community, but most decidedly a drag on social advancement, ought to be brought before a commission once a year from all parts of the country, and those that are decided to be incurably insane, criminally vicious, and inimical to the welfare of the whole community, ought to be put into a big scow and taken twenty leagues from shore and sank to the bottom of the Pacific ocean. I believe that this is a question of necessity, as the rate insanity is spreading in this country, especially in California, will render it necessary for the government to take some action of this sort.

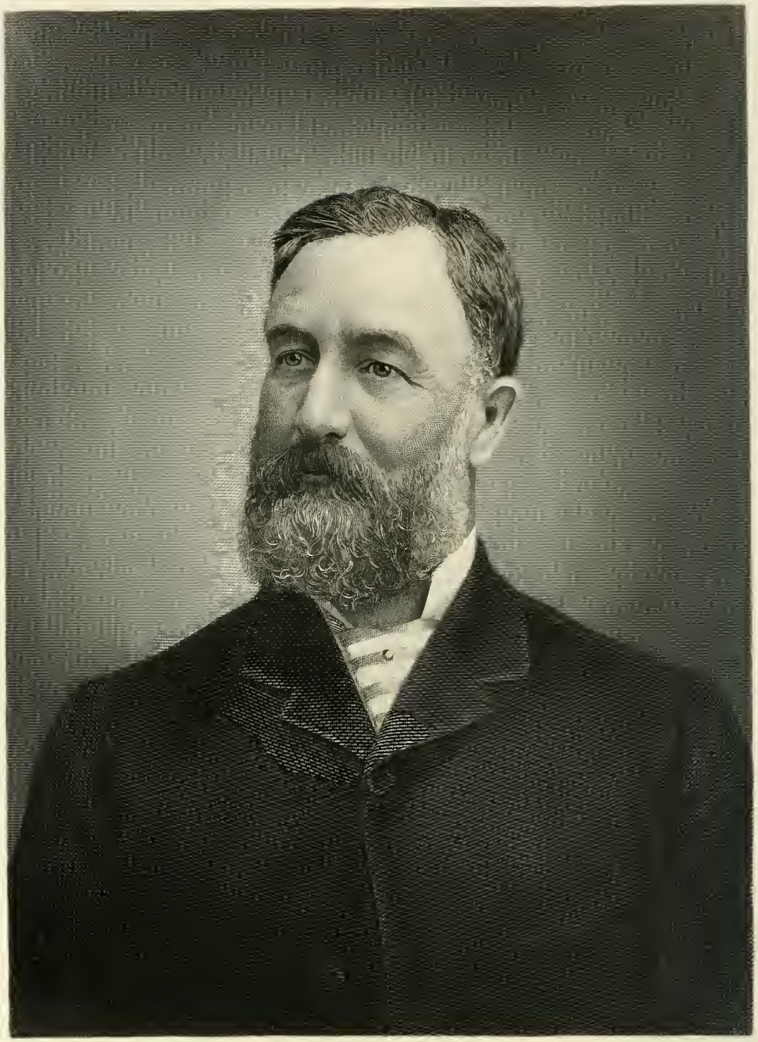
"I was a member of the insane commission, and I visited the Agnews' asylum where there are 500 incurables, drivelling idiots, men whose condition it would be unfit to state in print. It was horrible. It is too cruel, it is inhuman, it is unnecessary, to let such people live. It shocked me so that I resigned from the commission. When I suggested to the authorities that they have a lethal chamber where these poor wrecks could be quietly put out of the way, they were so religious they were shocked, talked about their immortal souls, and all such bosh. I think those things are too degrading. We all know the peculiarity of these vicious and insane people is to breed faster than any other class. Higher minded people don't increase; it is the vicious and degraded and immoral element that increases all the time. They should be taken before a commission, and then sent up to a central commission, having among them two superior judges and two doctors of undoubted probity and skill, and when this latter commission has passed upon them, their lamp should be quietly put out."

The negro question Mr Gird considers as by no means settled, and that in this direction we have still to suffer the penalty of our sins. He has faith in the doctrine of retribution, and believes that at some not distant day we must pay dearly for our treatment of the black race. We were wrong, he thinks, in placing the suffrage in their hands, thus giving them a weapon which they can readily turn against us. "I was myself an abolitionist," he says, "and so was my father before me; but I never believed in making free citizens of an oppressed and alien race, who were also dwellers in our midst. We had at the time an opportunity of getting rid of them forever, but we missed it. We should have taken our war-transports and every other vessel that could be spared, put them on board and shipped them back to Africa, or landed them in some suitable country, and stood guardians over them until they were capable of self-government. In a word we should have let them work out their own salvation. As matters are now; either we or our children must suffer the consequences, for sooner or later the negroes will surely turn on their oppressors."

To such frequent changes of administration as are required by the provisions of our constitution, with attendant changes in the civil service, Mr Gird is strongly opposed. Such a policy, he thinks, is in every way demoralizing, first of all allowing them to remain in office barely long enough to learn their business; then encouraging them to steal, an art which the average American is never slow to acquire; and finally increasing the tendency, already too strongly marked among our people, to become what he terms "intelligently corrupt." Far better even were the English system, apart from its shred of monarchy, its peers, its princes, and its paupers, and its frightful incubus of debt. Here the civil servant enjoys a life position, subject only to good behavior, with sure if slow promotion, and the certain prospect of a pension after a stated term of service. In the administration, changes can only be made at the will of the people, as expressed by their representatives in parliament, —that is through the defeat on some decisive measure of the party before in power.

But apart from political considerations Mr Gird is somewhat of an optimist as to the future of his country, and especially of the portion which has become his adopted home. In California, and especially in southern California, can be raised in abundance, and of excellent quality, all the fruits that thrive in temperate and sub-tropical zones. With the world for a customer there is no practical limit to the demand, and certainly there is none to the supply, though the latter is here and there curtailed by parasites destructive to orchard and vineyard. A few years ago southern California was considered worthless as a producer of cereals; it is now a large exporter of cereals, and with resources in other directions, both mineral and agricultural, unsurpassed by any portion of the broad domain subdued to civilization on these Pacific shores.

And now we must take our leave of him who has contributed so largely to measures conducive to the prosperity of southern California the unfolding of her resources, the development of her manufacturing capabilities. His career has indeed been an instructive one, and as interesting as instructive. Beginning life without other advantages than a good education, and physical, moral, and mental qualities acquired by inheritance and training, he has won his way to a foremost rank among the citizens of our western commonwealth. But not without many a bitter struggle, many a sore disappointment was this success achieved. At the age of forty we find him, after a quarter of a century of unrequited toil, prospecting amid the wilds of Arizona, with barely a thousand dollars in his possession. A few years later, through one of those chances which fortune strews in the path of her favorites, he became rich beyond the wildest dreams of his ambition. And yet in this instance it cannot be said that riches came, as to some of our millionaires, through the accident of stumbling across a bonanza. Rather were they the result of years of laborious and persistent striving, joined with the belief that here in this Arizona desert would finally be unearthed the treasures that had so long eluded him. And more than all this is the use that he made of this treasure, not risking it in other mining ventures, nor on the hazard of speculation, but purchasing a broad estate, as a homestead not only for himself, but for thousands of incoming families. Here he planted orchards and vineyards ; here he dug wells by the score, furnishing a thorough system of irrigation ; here he built roads and railroads ; founded a thriving settlement, and established the largest sugar factory and refinery in the United States. To such men is due the transformation of southern California from a mere cattle range into the fairest garden spot on all these fair western shores.



D. Fellman

CHAPTER V.

LIFE OF DANIEL FREEMAN.

TALENT AND OPPORTUNITY AS AGENCIES OF SUCCESS—ANCESTRY—EARLY SURROUNDINGS—EDUCATION—PRACTICE OF LAW—MARRIAGE—ENTERPRISE AT PORT BURWELL—EXPERIMENTAL FARMING IN CALIFORNIA—DEATH OF MRS. FREEMAN—CHARACTERISTICS

THE idea extensively prevails, especially among those who have achieved but little in the world, that successes result from fortuitous conditions. Environment may retard or accelerate achievement, but surroundings do not supply a man with the talents which enable him to acquire wealth or gain eminence in his pursuit. Opulence is sometimes derived through heirship or other accidental circumstance, and prominence may result from unusual influences, such as abnormal popular action, but real merit and substantial successes in any field are the products of adequate abilities and appropriate exertions.

In the old world, caste and class distinctions recognized and enforced by law and social customs operate as a restraint upon the exertion of natural faculties by the disfavored, but in America, where men are free and untrammelled, it may be regarded as a rule that achievements may be taken as the measure of abilities. In the abstract, it is not easy to determine which is greatest—the statesman, scientist, litterateur, merchant, mechanic, or agriculturist. It has been said with truth that he who causes two blades of grass to grow where before there had been but one is a benefactor to the human race. Superiority must be awarded on the basis of blessings conferred on the world, whatever may have been the avocation. Judgment will be formed of those with whom we come in contact from their works.

Daniel Freeman was born June 30, 1837, in the county of Norfolk, province of Ontario, British America. On the paternal side he is descended from an old English family of good repute. On the mother's side his ancestry were French, Irish, and Scotch. The maternal grandfather was descended from a distinguished Huguenot family, who fled from France during the persecution of that body by Charles IX., and settled in the north of Ireland. The maternal grandmother was a scion of the famous Scotch families of Dunbar and McFadden. The Baileys were strong intellectually, and possessed forcible characteristics. Both families in America were highly religious, and coöperated with that forcible, aggressive, and courageous element organized and built up by the immortal John Wesley. Reverend Daniel Freeman, the paternal, and Reverend John Bailey, the maternal, grandfather, were prominent and effective ministers in the Methodist church.

The ancestors of Daniel Freeman came from Devonshire, England, and were among the early emigrants to America. Samuel Freeman came to America in 1630, with Governor Winthrop, "the father of the Massachusetts Colony." Five years later his brother Edmund Freeman, and several other members of the family, came over in the ship *Abigail.*

Mr Lewis, in his *History of Lynn*, says: "This year [1635] many new inhabitants appear in Lynn, and among them worthy of note Mr Edmund Freeman, who presented to the Colony twenty corsletts, or pieces of plate armor."

Governor Hutchinson, in his *History of Massachusetts Bay*, makes prominent mention of Mr Edmund Freeman and fifteen others as "the founders of the colony of New Plymouth, the settlement of which colony occasioned the settlement of Massachusetts Bay, which was the source of all the other colonies of

New England"; and he adds: "I am not preserving from oblivion the names of heroes whose chief merit is the overthrow of cities, provinces, and empires; but the names of the founders of a flourishing town and colony, if not the whole British empire in America." Both of the sons of Edmund Freeman married daughters of Governor Prince, who was governor of Plymouth colony for more than twenty years.

The public records of Great Britain show that many of the Freeman family became judges, and officers both in the British navy and army. In America, especially in the early and trying days of the New England colonies, we find their descendants fighting for the cause of liberty and independence, and holding high offices, both in the senate and on the bench.

Major John Freeman took an active part in the Indian wars of the middle of the 17th century, and was assistant to the governor for many years, and judge of the court of common pleas. Captains Joshua, Joseph, and Watson Freeman, and Lieutenant Edmund Freeman, are spoken of in the early histories of New England as men worthy of honorable mention.

Colonel Edmund Freeman commanded a company in the revolutionary war, and was present at the surrender of Burgoyne.

Henry Prentiss, who was one of the memorable "Boston Tea Party," was a son-in-law of Jonathan Freeman.

Honorable Solomon Freeman, who died in 1808, was at the time of his death a senator, having represented his county twenty years, and having also been for many years a judge of the common pleas. Honorable Nathaniel Freeman, who died in 1827, was for twelve years a brigadier-general in the militia, and for thirty-six years a judge of the court of common pleas, and was a prominent member of the Massachusetts congress in the memorable year 1775. Honorable Jonathan Freeman was a member of the United States congress from 1797 to 1801.

Honorable Russel Freeman was a member of the state council, and in 1797 speaker of the house of representatives.

Honorable Enoch Freeman, born in 1706, was a prominent citizen of Falmouth. He was judge of the common pleas for twenty-nine years, and judge of probate for thirteen years.

Honorable Samuel Freeman, son of Enoch, was secretary to the provincial congress 1775, and was judge of the superior court for many years.

Andrew Freeman, the great grandfather of Daniel Freeman, settled in Woodbridge, New Jersey, but afterwards moved with his family to Wyoming, Pennsylvania. Many tribes of hostile Indians still roamed over this part of Pennsylvania, and shortly after Mr Freeman had settled there the village was attacked by them, and the villagers narrowly escaped being massacred. Mr Freeman was absent at the time of the attack, but returned just as the Indians were retreating, and only reached the shelter of the block-house after a hand-to-hand fight with them. The hostility of the savages compelled the white people to abandon their settlement at Wyoming, and nearly all of them, including the Freeman family, moved to Hope, in Warren county, New Jersey.

Daniel Freeman, the grandfather, was born on the 21st day of October, 1769. He was married early in life to Phebe Swayze, the daughter of "Squire" Swayze, who was a prominent citizen of Hope, and many of whose descendants are to be found in New Jersey. He was educated for the ministry, and in 1797 was sent by the Baltimore Methodist conference to the "Niagara District" in Canada. He settled at Long Point, in Norfolk county, near the north shore of Lake Erie, and built there the first Methodist church that was erected in Canada West. His district included all of Canada lying between the Niagara and the Detroit rivers, and his duty called him to travel and preach over this immense stretch of country. He preached the first sermon ever preached by a Protestant clergyman in Detroit. During the early years of his ministry western Canada was still inhabited by many tribes of Indians, and settlements of white people were few and far between. He frequently had to ride sixty miles in a day to reach a white man's house for shelter for the night. Nearly all the Indians were friendly, and when they came to know him, trusted and venerated him. They frequently requested him to act for them when they wished to apply to the Canadian government for relief or supplies.

The name of the father was Daniel Wesley. Daniel, as it appears, is a favorite name; three successive generations have borne it. Its biblical derivation indicates the religious characteristics of the family. The father was a farmer, stalwart in virtue, possessing strong intellectual powers, a friend of education, and for many years was superintendent of schools in his county. He was industrious and thrifty, and aided his children in acquiring an education as liberally as was in his power, and especially devoted himself to their moral and religious training. The high character which all his children have maintained is a tribute to his teachings and example. His son Daniel was a tall slender boy, but healthy, vivacious, humorous and fond of innocent mischief. He worked on the farm as do all farmer's sons, acquiring the theory and practice of all kinds of work. This toughened his constitution and made him lithe and sinewy. He was combative, not viciously, but just enough to strengthen him for a successful battle in life. The germs of power were born in him and his early experiences were well calculated to develop them. He was gifted with an acute sense of justice, and was generous and self-abnegating in spirit, and though in a sense not precocious, he learned rapidly, had a retentive memory and a mind of marked grasp and comprehensiveness.

It is not a matter of wonder that his pious and observant grandfathers should have singled him out to follow in their footsteps. They thought they saw in him the very elements which fitted him for their calling. In these practical times there is less tendency to arbitrarily select professions for sons than formerly, without consulting their tastes and adaptabilities. If the wishes of the grandfathers had been followed, it is not to be inferred from what has been said that Daniel Freeman would not have developed into a power in the pulpit, but his tastes were in another direction and though he undoubtedly would have done an immense service to the world in clerical occupation, still his achievements in other fields have not been barren of benefits to mankind. Perhaps he has accomplished more of real good than if he had devoted his life wholly to ministerial labors. The wants and interests of the human family require work in many fields, and he who chooses an avocation according to his taste, and to which he is best adapted, performs the highest service to the world.

Until he was fifteen years old the educational advantages of young Freeman were such as the neighboring schools afforded. At that age he was sent to Lynn Grove academy, where he studied Latin and the higher mathematics. His position was in the very front of his classes. Being occasionally assigned to hear recitations in the place of the tutor, he acquired a taste for teaching, and was inclined to choose it for a profession. To many it is quite as agreeable to impart as to acquire knowledge, and young Freeman delighted in both. As soon as he grew into a realization of the grasp and strength of his mental powers, he began to fully consider the occupation he would follow. Like all aspiring young men he turned his thoughts to the various professions, and the adaptability of his genius. To those of self-reliant spirit, combative disposition, and strength of mind the profession of law is the most attractive, and suggestive of pecuniary reward and honorable preferment. He resolved to be a lawyer, but he was without money, and through the general depression of the times farming had proved unremunerative, and his father had become so embarrassed that he was unable to supply the money to defray the expenses of his legal education. He had a resource, however, which did not fail him. He had studied so diligently for the opportunities he had enjoyed, that he was abundantly equipped for teaching. Obtaining a certificate of the highest character at the age of eighteen, he followed that calling for three years with success, and managed to save money enough to enter upon the study of his cherished profession.

At his majority he was articled for five years to a distant relative, S. B. Freeman, Q. C., a prominent lawyer in Hamilton, Ontario, in whose office he made a conquest of all the branches of the law, and attended lectures in Osgoode Hall, a government law institution. At the age of twenty-six the degree of barrister-at-law was conferred on him by the university, which was the highest within its authority. Mr Freeman immediately opened an office at Simcoe. His reading had been so thorough, and his judgment and business abilities had been so early made conspicuous that he rapily gained a lucrative practice. Later he entered into partnership with Colonel D. Tisdale, Q. C. M. P., who stood high in his profession and in popular estimation. That so young a practitioner was able to form connections so favorable is the best proof of his personal merits and professional attainments. With his early professional earnings he paid off and caused to be discharged a mortgage on his father's farm amounting to several thousand dollars, and according to scriptural rule his life should be long on earth because he not only honored his parent but relieved him from trouble and anxiety.

When Mr Freeman had attained a reasonable competence and status at the bar, so that he felt confident that he could properly support a family, he married Miss Grace Christie, daughter of Captain John Christie of the royal navy, which event took place in

June 1866. Her father had deceased while she was still a minor, and during her wardship the estate left by him had been badly managed. To correct this and save as much as possible became the duty of Mr Freeman. His excellent sense and legal knowledge adapted him to such a task, and he accomplished all that was possible under the circumstances.

Mr Freeman's professional work was incessant and necessarily confined him closely to his office. Though possessing a good deal of endurance, his labors and confinement had a deleterious effect upon his health, and threatened to permanently impair his constitutional vigor. Beyond this he was a man of observation, and strongly inclined to engage in business connected with material development. The country had great natural resources, especially in timber suitable for ship-building, and all kinds of lumber. The people in many localities were listless, without enterprise, and seemed not to realize the possibilities of the country. The situation was clear to the penetrating mind of Mr Freeman, and he resolved to engage in what was conducive to health and congenial, and which promised handsome rewards. In 1868 he removed to Port Burwell on Lake Erie, and began to improve the harbor and make it more useful for commerce. He also established a shipyard and built a sawmill. The somnolence of the people disappeared under the enterprising example of Mr Freeman, and through the avenues of industry that were opened to them. The ships built in his yard were of excellent quality and brought the highest prices in the market, and his sawmill supplied lumber to Port Burwell and the surrounding country. He also engaged in getting out bog-iron ore with some Americans for a time. He kept the country alive with the industries he had established.

He continued in these various pursuits for a period of about five years, serving for a time as a member of the county council, and having been frequently called by the district judge to preside over the courts. At the age of thirty-five he had advanced far on the road to pecuniary fortune, and had acquired such a standing, if he had so desired, that high political preferment was within his grasp.

Though Mr Freeman's successes were so flattering, he was more greatly blest in his domestic relations. Mrs Freeman was a woman of personal charms, exalted virtues, and made her home a model for domestic happiness. His active and successful career in the land of his birth was destined to a speedy termination from a cause over which he had no control, and which cast a dark shadow over his otherwise happy existence. In one of her customary visits of charity among the poor, the weather being extremely severe, Mrs Freeman contracted a cold which settled on her lungs and rapidly developed into consumption. The best treatment and care in that inhospitable climate had no effect in removing or mitigating the malady. Mr Freeman sacrificed pecuniary interests and personal comforts in efforts to restore his wife to health, and in the hope that a milder climate would prove an antidote, he travelled with his family in the southern states of the American union in the winter of 1872. He contemplated a trip to Jamaica, and while on the railroad cars going from Macon to Atlanta, Georgia, he obtained from a newsboy Nordhoff's book on California, which contained a chapter on "California for Invalids." The statements of the author so interested him that he resolved to remove to the Pacific coast, and in January 1873 he arrived in San Francisco with his wife and family.

It is characteristic of Mr Freeman to investigate carefully and thoroughly before arriving at a final conclusion. Thinking well of California from first appearances, and being more and more favorably impressed as his knowledge of the country increased, and though intending to take up permanent abode in the state he would not decide where he would locate until he had made a personal examination. He travelled extensively over the state, and especially in the southern part. On the fullest investigation and reflection he resolved to make Los Angeles county his home, convinced as he was of the unsurpassed fertility of the soil and of the immense resources which were susceptible of being developed into wealth. He reached this conclusion with no experience or statistics to aid him, for the country was a vast pasture for sheep and cattle, and almost in the condition it had been made by nature. Few crops were raised, and the people purchased much the larger part of what they consumed from abroad. The country was deemed too dry for the raising of vegetables and cereals, and even of fruits, except grapes, the culture of which had been introduced by the early missionary fathers. Markets were meagre, as there were no rail connections with the north or east. The tread of the herdsman was almost the only sound of industry in the land.

Mr Freeman's early training and experiences on a farm were of great service to him. His observations and philosophy induced him to believe that the cereals could be raised without irrigation. His views were strenuously combated by the oldest inhabitants. He resolved to demonstrate their correctness by experiment. He leased for a term of five years from Sir Robert Burnett, a Scotch baronet, the now celebrated rancho whose Spanish name was Aguaje de la Centinela, or Spring of the Sentinel, so called on account of the high and commanding view from the spring, and also Sausal Redondo or the round willow grove rancho. These ranchos are embraced in the limits of two Mexican grants, confirmed under the treaty of Guadalupe Hidalgo, and patented by the United States. They contain a little more than twenty-five thousand acres, one-half of which is flat mesa watered by the Centinela spring, and the other is high and rolling. Removing his family to an adobe house of the better class, erected on the rancho in 1804, Mr Freeman devoted himself to fruit-growing and experimental farming. In 1874 he planted orange seeds, and afterward set out 7,000 orange trees, 2,000 almond, 1,800 lemon, 400 lime, and 300 olive, and an assortment of deciduous fruit trees. They were set out on about one hundred and eighty acres, which was laid out in squares with streets crossing each other at right angles, and ornamented and shaded by eucalyptus and pepper trees. He combined the beautiful with the useful, and waited from six to nine years for the orchard to arrive at a bearing condition.

The salubrity of the California climate failed to restore Mrs Freeman to health or to prolong her life, nor could the best treatment and care arrest the ravages of her direful malady. She deceased in November 1874, leaving three young children for her now disconsolate husband to rear. How well he has discharged that duty will be referred to in the sequel.

Mr Freeman never ceased to impress upon the baronet his opinion that the most profitable thing to do was to grow grain, and that this could be successfully done without irrigation. Sir Robert dissuaded him on all occasions, and advised sheep-raising, and Mr Freeman, not without misgivings, followed his advice. The result was that in 1876, it having been a dry season, 14,000 sheep perished from starvation. This disaster determined Mr Freeman to embark in raising cereals, and in the same winter he sowed 640 acres to barley, and though but four and one-half inches of water fell that season, the yield was twenty-five bushels to the acre. He continued to increase the acreage in grain, and in 1880 it amounted to 3,000 in barley, an equal acreage in wheat, and one hundred acres in flax. He also had fifteen thousand sheep of the Southdown breed on the rancho, and there was no starvation, because the rancho was made to produce sufficient food for the animals as well as the men. Thereafter the rancho was nearly all cultivated by Mr Freeman and his tenants, with satisfactory profits to all. In

1883 the product of grain was more than three hundred thousand, and in 1884 about a million of bushels. "The sight of these broad acres was something not to be forgotten. From points on the Centinela the whole of the two ranchos could be viewed at once, a sea of waving grain, the deep green of the wheat shading off into the golden tints of the barley, and all waving in billows responsive to the rhythmic breezes from that other sea close at hand, the blue Pacific."

The fame of Mr Freeman's operations spread over a wide extent, and his successes stimulated similar efforts in all directions. Cereal productions speedily became immensely enhanced in Los Angeles county, and the people ever since have been growing in knowledge of the possibilities and adaptabilities of the country. The advent of railroads into Los Angeles, and their construction to eastern connections, gave further impetus to fruit and farming industries.

It is related as a historical fact that in the early period of the reign of Augustus agriculture in Italy had so languished from want of interest and from neglect that the people were in imminent danger of starvation. The situation was so alarming as to attract the profoundest attention of the Emperor and his advisers. Virgil had achieved considerable celebrity as a poet and litterateur, and Mæcenas suggested that he be requested to write on the subject of agriculture. When invited by the emperor, he composed and published his Georgics, which were so instructive and popular with the people that they had the effect to arouse the farmers to a return to that energy and industry which had distinguished their class in past generations, and had made Italy a land of plenty. Mr Freeman has not written Georgics, but he was the pioneer in demonstrating the capabilities of the country, and has induced others to copy his example to such an extent that agriculture and fruit productions have largely increased in southern California.

The lease from Sir Robert Burnett gave Mr Freeman the option of purchase at the expiration of the term; but before the five years had elapsed he had bought the entire rancho for six dollars an acre. The rancho is a domain in area, and has been made famous for productiveness under Mr Freeman's management. In 1886 he sold about one-half of it to a Los Angeles company for twenty-five dollars an acre, and in 1887 he sold about eleven thousand acres for one hundred and twenty-five dollars per acre and two-fifths of any profits that might be made through its subdivision and sale. The purchasing company has platted a townsite which embraces nearly a thousand acres, and includes the grove or orchard. The name of the town is Inglewood, through which the California Central railroad runs from Los Angeles to Redondo beach, and at Inglewood a branch also extends to Ballona harbor. A large sum of money is being expended to make Redondo beach a shipping point and summer resort. Inglewood lies midway between Los Angeles and the ocean, and has the full benefit of the sea air. The scenery is grand and charming. It is in the midst of a broad, undulating country, from which the ocean, Catalina island, and Los Angeles are visible. The Coast and Sierra Madre ranges appear like vast cloud banks in the northeastern sky, and in the distance the peaks of San Bernardino and San Jacinto look as if Pelion had been piled on Ossa. The outflow of purest water of the Centinela spring is a million gallons daily, and with little expense it may be quadrupled. The orchard, as it is called, is one of the most attractive groves in the country. Mr Freeman has erected a commodious residence at Inglewood at a large cost. It stands on an eminence from which the country may be viewed in all directions and for a great distance. The structure is convenient, solid, and tasteful, and is such as those acquainted with Mr Freeman would expect. It is a reflex of his mind and character.

Mr Freeman appreciates the value of education, and loses no opportunity to promote it in all practicable ways. He has made a princely donation to the university of southern California for the benefit of the Freeman College of Applied Sciences which is in process of construction at Inglewood. The precise value of the donation cannot be determined until the lands are sold and converted into money. It is certainly sufficient to erect the college buildings, and to also leave to the institution a handsome endowment The rancho, except that part which has been sold off in town lots and acreage tracts, is still cultivated under an arrangement with the purchasing company, and under the supervision of Mr Freeman. He is greatly interested in the growth and prosperity of Inglewood, as it is his home, and built upon the rancho which he developed into so much importance. He has expended a large sum of money there in constructing a brick kiln under a patent for continuous and economical burning, in which a considerable number of men are employed, and from which he expects to supply brick to Los Angeles and the surrounding country. Mr Freeman is a believer in industries, and promotes them whenever he can. He has accumulated a large fortune through good judgment, foresight, and wise management. That his property advanced immensely in price resulted from the fact that population has rapidly increased in the country. It was not luck that it was so: he, like other pioneer investors, had the ability to see what the future would inevitably bring forth.

Mr Freeman has three children, Archibald Christie, born March 14, 1867, Charles, born September 4, 1868, and Grace, born January 30, 1870, all being offspring of the deceased wife. His children, for the most part, have been instructed at home by the best attainable private teachers. They have been well educated and reared. They have good manners, are unostentatious, and respectful to parent, each other, and to all with whom they come in contact. The sons have no bad habits, and are industrious, and instructed in business affairs. The oldest is a civil and railroad engineer by education, but at twenty-one he was given the active management of the rancho, and has conducted its affairs with remarkable success for one of his years. The youngest has until the present time devoted himself to his studies, but recently has been acting as his father's assistant. The daughter is a lady of charming modesty and attractive manners, and has recently married Mr Charles H. Howland, C. E., an estimable young gentleman who holds the position of her father's private secretary. Mr Freeman's home is a model for hospitality, that free and generous hospitality which characterizes the affluent gentleman. He has a wide circle of acquaintances and friends, social and business. He was one of the originators, and is the president of the California club, whose membership comprises the best men in Los Angeles, and is an honor to the city. Mr Freeman is by no means a bon vivant, but lives generously, and enjoys the society of his friends, has a fondness for real humor, but indulges in no inelegant witticisms. He is a busy man, and has no time to spend in frivolous sociability. His mind is disciplined, and he can turn from one thing to another in the transaction of business without confusion or danger of incorrectness. His phrenological developments indicate quick perceptions and profound reflection, and his legal training and varied business experiences have developed the natural logical characteristics of his mind. He is a man of extensive reading and general information. There is nothing shoddy about him, nor is he romantic, but is a lover of the grand in nature and the real in art. His character for integrity is without stain. He is beneficent to the poor, and generous to his employees. He has no bad habits, and has not departed from the rigid morality of his early teachings. Such a man is necessarily widely known and extensively influential; his purse is open to promote every good cause, and to give impetus to every enterprise calculated to build up the country. Unlike too many of our active and absorbed men, he has made himself known to his children, and impressed his character upon them. His height is six feet two inches, and he is well proportioned, his eyes are blue, and his complexion ruddy, his hair is dark, and sprinkled with gray. He has great force and determination, is genial in manner, and altogether is such a man as would impress himself upon any intelligent community. Possessing robust health and a strong constitution, a long and useful life seems vouchsafed to him.

A S Hatch,

CHAPTER VI.

LIFE OF AUGUSTUS T. HATCH.

HORTICULTURE IN CALIFORNIA—INCIDENTS OF YOUTHFUL STRUGGLE—LABOR AND CONFIDENCE IN SELF—VARIED AND STRIKING EXPERIENCES—MOVE TO CALIFORNIA—MARRIAGE—A NAPOLEON IN THE ACQUISITION OF ACRES—ORIGINAL BUSINESS METHODS—SCIENTIFIC HORTICULTURE—EVOLUTION OF THE GREAT FRUIT INDUSTRY—WHAT FAITH AND WORK CAN DO.

THE progress of California has been particularly pronounced in the direction of horticulture. A comparison might be made to justify this statement, but such a parallel would require a complex and perhaps not altogether profitable study of statistics. Its utility is doubtful, at all events, as it is my purpose to set forth to the best of my ability the essential facts regarding each department. These should speak plainly enough for themselves. But judging fairly and conservatively of the future by the past, I see that though very much has been accomplished in horticulture, it is an industry of indefinite expansion. In the order of events gold reigned; then there were cattle kings, and then grain held sway upon ranchos measured by the league. Later the energy of men in these avocations has been more and more diverted. The growth of the olive and the vine—the fruit of almost every zone being at home in this state—has encroached upon other products, subduing ever with substantial effect. Among the chief factors in this development is Augustus Timothy Hatch.

There are so many several-sided persons in every community that it is refreshing now and then to meet with one who is genuine throughout, who sets not apart Monday for morality, Wednesday for honesty, and Sunday for sanctimony, but who is the same whatever the conditions. Such will be the rule in society, rather than the exception, only when nature has evolved and perfected a system of ethics which shall more fully supersede traditional morality, and the reign of common-sense becomes supreme.

While Chicago was yet Fort Dearborn, and South Bend but a small village, Elkhart, Indiana, was the home of a family who gave to California one of her men of truest metal, Augustus Timothy Hatch, born on the 31st of January 1837. It was in a most healthy environment that his early life was passed. His father, Ambrose Timothy Hatch, and his mother, whose maiden name was Lydia Ann Beebe, were natives of New York. On the father's side his family were of English origin, tracing back to Thomas Hatch in England in 1610. They emigrated to New England in very early times. On the mother's side they were Welsh and English. Among the family connections of the former was Jane Porter, the authoress; while among the latter was Hugh Peters, the Welshman, whose firmness for what he deemed right was such that he lost his head on the block rather than participate in a coronation which did not agree with his ideas of justice. His paternal grandfather, Captain Timothy Hatch, was an officer in the war of 1812, and died at eighty years of age; his maternal grandfather, S. P. Beebe, was for many years probate judge of Elkhart county, Indiana. Among the representatives of the family of this generation are General John Porter Hatch of the regular army, and Alexander Hatch, who went as a pioneer into New Mexico and raised grain for government use on what is still known as Hatch's rancho. His family generally have been strong of mind and body and living to an advanced age. Of the family of Captain Timothy Hatch there were

24 children; six of them were step-children named Pierson. When the youngest was 19 years old all were living. Now their descendants number over 700.

Ambrose Timothy Hatch, when quite young, went from New York to Indiana and established a trading post among the Indians, who called him shemoga (prophet) because he foretold eclipses of the sun and moon. He was an ingenious, brave, cool-headed man, respected for his integrity and judgment. His business as a trader, however, was speculative and dangerous. On one occasion a competing Frenchman employed five Indians to take his life. They came upon him when he was unarmed, alone, and so ill that he was barely able to rise from bed; but he made them a speech which turned them from their purpose. "Who has been a better friend to you than I? Did you ever ask me for anything that I refused?" "No," they replied. "Yet," continued he, "five of you come here to kill one sick man, who has always been your friend. What kind of braves are you? You have not the courage of a woman. You cannot kill me; you dare not."

The Indians with whom he traded trusted him implicitly, and often left with him their money. At a government conference the same Frenchman who had incited them to assassination before made them believe that he was going to keep their money, and having got a number of them drunk he induced them to repeat the attempt. They surrounded him, cut his bridle reins and demanded the money he had in his saddle bags. Seizing a handful of silver coin he scattered it among them and while they scrambled for it he put spurs to his horse and escaped. Shortly afterward in their camp, to which he returned, he handed over to them all the funds they had deposited with him. He entered, later, into the grocery business, moving along the line of construction of the Michigan central railroad.

Augustus Timothy remained with his father until he was eleven years old, when he went back to Elkhart to live with his grandfather, attending school there for four years, sweeping the school-house and making fires to pay for his tuition. He was hardy, full of life, and ever ambitious to excel. At work or play he was the last to stop. He could not endure the thought that there was a class too high for him. On entering the Elkhart school he was assigned to the second grammar class; but the next day when the first class was called he went up with it. The teacher smiled, but was pleased with his show of spirit, and humored him. He had to struggle at first to maintain himself, but finally worked himself up among the first in his class. He became remarkably proficient in our perplexing orthography, and at thirteen years of age was well grounded in mathematics. In the mean time he indulged himself in a passion for reading. Shakespeare, *Malte-Burn's Mathematical Geography of all parts of the World*, Charles Lever's novels, the *Spectator*, or whatever else was handy in the miscellaneous literature of the frontier, he seized and devoured. And yet he did not cut himself off from all the diversions that boys love. He was full of mischief and bold in it. As coadjutor of a mesmerist one evening he played his rôle to perfection. The needle which was run through the nose, and every other punishment—understood, of course, to be painless—he endured without wincing, and obeyed every command of the dominant mind of his principal, instantly, though not always as agreed to beforehand. Being told by the showman that a boy was making faces at him, like a shot he flew at the offender. One of his teachers in the audience exclaimed: "That's Tim Hatch to a dot," so natural was the play. Seldom imposing but ever ready to resist imposition, he one time did overstep the bounds of equity, and when he was struck for it he took the blow without resentment. He said to himself: "That serves me right," an expression of extraordinary self-control, which is the highest form of moral courage. His grandfather's discipline was pretty severe with boys. Tim took to his heels one day, and the old gentleman, who had a gun in his hand, brought it to his shoulder and ordered him to stop. He only ran the faster, put a fence between himself and his irate ancestor, and twinkled his fingers in gleeful defiance.

His mother had died when he was fifteen months old. A step-mother came into the house, and he was removed at eleven years to his grandfather's. At fifteen years of age, ready to begin the struggle of life among men, he returned to his father, whom he loved and respected. But there was a feature in his father's business, which though excusable, perhaps, and unavoidable in the nature of the grocery trade in that region at that time, young Hatch could not reconcile himself to, the sale of intoxicating liquors.

With a change of clothes and seven dollars in his pocket, he went to Monoquet, Indiana. A small water-power town belonging to a cousin, who gave gave him a clerkship in a store for ten dollars a month and board. At the beginning of the second year he was transferred to his cousin's flour mill, in which he worked six months at $15 per month. Then he was offered the charge of the mill, with a salary of $50 a month, providing he would remain in as assistant six months longer. He said no, he did not wish to be a miller. Then the offer was made him to take the place of the superintendant, who was going away. This place he accepted, and managed the business so well that at the end of the year he was offered one third of the profits, about $1,000, for the next twelve months. But his ambition prompted him to go to a city. He was willing to begin at the bottom with a chance to climb. With two or three hundred dollars saved he went to Cincinnati. After looking around for a few days he applied for the situation of salesman in a fancy dry-goods house. "Have you any references to offer?" he was asked. "None," was his answer. He had wealthy relatives in the city, but he was going to stand or fall alone. "Do you know anything about the business?" "No, but I can pick it up as quickly as any one you ever saw." They smiled at his assurance and his rustic appearance. "Gentlemen," said he, "take me for three months. If any time during the three months you find you don't want me let me go and it will cost you nothing—but if you keep me the three months you may pay me $25 per month." They gave him the coveted opportunity. The foreman of the establishment turned up his nose at the young man's mistakes, but he never repeated a mistake, and he never required anything explained to him twice. When the probation period of three months expired, the supercilious foreman had ceased smiling. He became quite serious and offered young Hatch $50 a month for a year; this he declined and continued with the firm only a month longer, during which he had the satisfaction of selling more goods than any other person in the house, not excepting the foreman.

He took employment next with Ryland, Ostrom and company, a wholesale hardware house, but at the end of a year with them, which brought him to the spring of 1857, he found himself spending more money than he was making. He would go to California and try his fortune there. He went by rail to St. Louis and thence to Council Bluffs by steamer, armed with rifle, six-shooter, and bowie-knife, the regulation outfit, and for which he never found any use. There he fell in with a man named Goodrich, who was starting overland with sheep, for the privilege of whose company, and the transportation of his blankets and clothes, he engaged to help with his drive. In his zeal one day he stepped outside of his duty, and rode a pony to urge up some lagging sheep, to which Goodrich taking exception, Hatch exclaimed, "Take your pony, I'll never ride again," and he did not, tramping the rest of the way across the plains to Big meadows, Plumas county, where the party arrived September 8, 1857. Being then in Goodrich's debt $56.50, he worked it out and put the credit, $17, on the other side.

Going down Feather river he applied for work in the mines; the best he could get was half the usual wages—that is $2 a day and board. He was what trade union men call a "scab." Would work for whatever wages he could get. He says that term may still be applied to him, and is proud of it, when used in connection with the words "trade union." But he was a conscientious worker, "the first emigrant," said old Dave Kirkham, "that I ever knew to do a day's work in mining from the start." His revolver and knife he had lost; his rifle he raffled off for $50. In company with others he prospected at Inskip and Lovelock without success. He had paid the expenses of the party he was with, and his last dollar was gone. They thought they would try their luck in Chili then, but the Fraser river excitement broke out and his fellow-prospectors followed in its wake. Hatch concluded to remain in the neighborhood a while longer. Without a cent in his pocket and having nothing to eat, he struck out for Mooresville. While plodding along, pinched with hunger, the third day out he came upon an Indian camp in which he found some dried caterpillars. He did not try them, but trudged on. He reached Mooresville at last, where he obtained employment digging a ditch; but when this was done and he started back to Kirkham's he came near starving. After three days' walking without food he offered a gold pen, which was all he had, for something to eat. It was a good Samaritan to whom he applied, whose kind words and generous treatment brought from him the first and only tears he ever shed in California. He paid for the food by work. In all this it must not be inferred that it was man's inhumanity to man that stood in his way; simply his lines were not cast in a prosperous region; the labor market was overstocked. In competing with others for the privilege of toil, among employers to whom he was a stranger, he was at a disadvantage. He was slight of build, short of stature, boyish in appearance, and out at the elbows and toes. Yet he struggled on, and went back to Kirkham, on Feather river, for whom he worked a claim for $2.50 a day. Later he bought a claim to be paid for from the yield, and in the autumn of 1860 he had about $1,700.

His thoughts now went back to Indiana, where before he came away his boyish fancy had been smitten by the semblance of love, and he lost no time in following his inclinations. He returned home by way of the Isthmus. But he found his heart's desire changed toward him; he was not the ideal of her mature mind. And thus perished without much suffering this juvenile fancy. On the 14th of March 1861, he married Mary Graham, who has been a loyal, brave, and sagacious help-meet for him in all the ups and downs of his varied experience.

The most promising marriages are those which spring from a concurrence of heart and mind, the common-sense of which is that the contracting parties are reasonable, adapt themselves to each other, and practically blend their lives in one. Having $600 left, Mr Hatch bought an outfit of several horses and a wagon, and on April 3d, accompanied by his wife, his half-brother, and a boy, he began his second journey across the plains, making the trip without extraordinary incident, and arrived at Mountain meadows, at the headwaters of the Feather river in Plumas county, August 25, 1861. All but five of his horses had died from the effects of drinking alkaline water, and these were sick; so there was no alternative but to begin life in the golden state as he had begun it before; that is, at the bottom. Putting his stock out to pasture he went down to Colusa and chopped wood, his wife doing the housework, and the two earning $40 a month. With the first money saved from their joint earnings they bought a squatter's claim to a small tract of land on the Sacramento river. The war feeling ran high, especially among his neighbors, who were nearly all southerners. His first act was to take down the confederate flag which he found tacked up in the house, and replaced it with the stars and stripes above the roof. The captain of the river steamer, a union man, had previously seen the rebel flag on the roof, and left word that if it was there when he came up again he would stop on his return and pull down the house; so it had been taken down and tacked on the inner wall. His neighbors waited on Hatch and made threats, but finding he was not to be frightened, and would cheerfully risk his life for the honor of the union banner, they changed their tone and complained that he was not treating the sentiments of the community with proper respect.

Hatch was at this time a familiar and picturesque figure in that region, driving a big American mare and a little Spanish pony in a wagon loaded with produce up to Marysville one day and back the next; nor was his experience uneventful. One night at Marysville he strolled into a large gaming-house, and seeing an elderly farmer under the control of a couple of gamblers who were robbing him of his money, he interposed boldly and induced the old man to leave the place with him and go to bed. The sharpers resented this interference with their game as a mortal affront, and made up their minds to kill him. The next time he was in town he dropped into the same saloon. A rough looking fellow, known as Lucky Bill, motioned him to come over to the gambling table. As Hatch walked over he saw him cock a pistol under the edge of the table with one hand. "Young man," said the gambler, "I understand you interrupted a game here the other night." "I did," said Hatch, "I was not going to see an old friend swindled." "That's our business," returned the gambler, "and the next time you put in your lip, you'll have to settle with me." Leaning over the table and putting his face close to the gambler's, Hatch, who had a handy knife in his sleeve, and was determined that if his adversary made a move with his pistol to kill him before he could raise it, answered in a low resolute tone: "I have taken care of myself since I was eleven years old, in bigger towns than this; and I think I can do so in Marysville; now what are you going to do about it?" Said the gambler, who was a great coward: "Don't ever do it again here."

Very few men, during these days, in such environment failed to try fortune at the gaming table. Hatch's first and last experience of this sort was to put down a half dollar at faro. He drew out $10, and was congratulating himself on his luck, when a man said to him: "That's the worst thing that could have happened to you, young man; it will be your ruin." But it was not. The remark set him thinking, and he never played at faro again.

In the winter of 1863–4 he went to Reese river, Nevada, which was the scene of a great silver-mining excitement, taking with him his wife and all his belongings, including a span of horses, three yoke of cattle and two wagons. At Big creek cañon, a few miles south of Austin, he was fortunate, so great was the rush, to secure a cabin twelve feet square, with the original soil for the floor, a blanket for a door and barley sacks for a window, at $30 a month. In these close quarters the family and four men ate and slept, until he found the reputed mines a delusion, whereupon he passed into Mammoth district, Nye county, about 130 miles south of Wadsworth. Parties in possession of the ground charging what he regarded as an exorbitant price for a building lot, he located an addition to the townsite, giving lots to all who would build. When he left the place, seven years later, there was but one house in the original town, but his town, Ellsworth, was quite a camp.

The incidents of his life were such as can be imagined by one familiar with the history of the rise and fall of mining settlements in Nevada, which were very aptly called camps. He prospected industriously, and in order to meet expenses took part in everything by which he could make a dollar legitimately. He bought and sold anything at hand. He guided strangers seeking mining claims through the district; if they wanted lodging and meals he accommodated them and took care of their horses. Always on the alert he seized every opportunity, while his wife responded cheerfully to the demand upon her at the house. Once, when their flour was exhausted, ten pounds of shorts being all the breadstuffs they had left a well dressed man riding a fine horse called at their door and wanted to buy bread. Said Hatch, smiling at the predicament: "Stranger, I have none to sell; you appear to have money, and you have a stout horse; it is only twelve miles to the next town. If you were 'broke' I would divide with you such as I have; you can go to where flour is to be had, and I will have to let you go." It was against the grain for him to do so, for it was not his habit to allow those who wished to buy or sell to pass him by.

On the whole it was rather a poor camp, the only prospect being the possibility of striking a quartz vein of pay ore. This good fortune ultimately befell Hatch. One night a friend told him of a cattle-driver having a piece of rock which assayed $80 in silver. All that he could say about it was that he had picked it up on a blind trail in a cañon heading north of Mammoth district. Hatch, though thinking now and then of the find, did not try to locate it for two years. He then rode out and found the claim, which he named Marble falls. It was evidently a valuable property, but he would have to sell it. The attempt was opposed by an Indian called Virginia Jim, who claimed the ledge, saying that his mother had given it to him. He was persistent, and brought forward an Indian woman who spoke English to urge his rights, and went to see the district judge, to whom his aboriginal plea was made. Hatch met Jim kindly, and endeavored to satisfy him without quoting the mining laws. "If you had guided me to the ledge," he said, "it would have been different; but you had nothing to do with it; I went there myself and found it." But all argument was wasted on the aboriginal. One day Hatch went over to the mine alone, carrying a pistol, as was his custom. Seeing the Indian standing on the ledge as if to assert his ownership, he went up to him. "Jim," said he, "I want you to go away from here." "By and by" was his laconic and dogged reply. "I want you to go now, and don't you ever show yourself here again." The Indian, realizing that his pretentions would not work, turned and departed, and was never troublesome any more. A white man also made trouble; nevertheless Hatch sold his three-fifths interest for $14,000. The mines had paid him at last, but it was no place for a home for himself and family.

It was hard upon his wife, who was often left alone, but she bore her trials bravely. Few women were in the mines, and the acquaintance of these as a rule was not desirable. Two of their children were born before the doctor came, but nature and a chance book on midwifery were sufficient. Whither it was best to remove Hatch was at some pains to determine. It was now the latter part of 1870. Eureka, Nevada, was attracting attention as a growing mining camp, and he thought of starting a bank. Doubtless he would have become rich had he done so, for such is the history of the early bankers there; but, considering his wide influence in California in a sphere of vastly greater importance, it is fortunate for this state and for himself that he finally determined to come to San Francisco.

It was at a time when real estate values began to recover from the earthquake shock of 1868, and he considered the advisability of investing his money in realty in this city. He had a chance to purchase a fifty-foot lot on Market street near where the Baldwin hotel now stands. It was an investment which would have enriched him, but again he and the state were benefited by his looking farther. An old friend, a miller, had come out from Indiana, and was farming at Suisun. Mr and Mrs Hatch visited him there, liked the prospect and bought him out for $10,000.

The first year Mr Hatch sold $75 worth of pears from three trees which he found on the place. It was five years later before it occurred to him to plant other pear trees, although they paid better than anything else. So slow are opportunities in forcing themselves upon our attention at times. There are others, however, who have not discovered the profit in pear trees yet. He planted a small vineyard and three or four hundred fruit trees. After working a year or two he said to himself, "Is it necessary to have a $10,000 farm and work so hard to make a living? What else can I do?"

Here began his actual fruit-growing. There was an almond tree on a neighbor's place which yielded a crop every year. Thought he, "I'll plant some almonds." He planted a few trees; they were prolific. Then he planted more, and he has kept planting more almonds ever since. Then he would raise something besides almonds; he planted the remainder of 120 acres of valley land in other fruits, and withal some more almonds. The languedocs generally planted in California had not proved successful, and his experience with this variety was similar. He looked into the matter pretty carefully, and found what he thought would do better; that is a small almond, not a superior quality of nut, but better than none, as it bore well. He budded his seedlings from these. There were several hundred seedlings for which he had no buds; he left them without budding, and that year found one tree which bore unusually fine nuts. Deeming it best he let the rest of the trees alone to see what kind of nuts they would produce. The nuts he had planted to get a root for budding were large bitter almonds. He found among them, the next year, some very fine almonds; in fact, he had about seventy varieties better than languedoc. No two trees bore the same kind. He had almonds of all shapes and sizes. He selected some very choice nuts, among which were the IXL, nonpareil, and ne plus ultra. These three proved to be good bearers, fine nuts, easy to hull, and desirable in every way. From these he began to propagate by budding and grafting from the branches, planting the hard shells or bitter almond to get roots; and now there are at least 10,000 acres of almond trees in California from these three trees! Here was factorship in fruit history.

One day a friend was in his orchard, to whom he said: "I am going to have an income of $5,000 a year from this place." His friend said, in reply: "I believe you can; but, as for me, I don't know what my aim is except to save what I have." In this brief conversation a contrast is evident; the stationary and the progressive spirit. Hatch had gone $8,000 in debt by planting trees, and meanwhile had not the use of land for other purposes. When it was all in order he was offered $10,000 a year for it for ten years. Then he thought he could do better, and declined the offer. The land on which he was doing this was comparatively inferior. He had taken it knowing the report to be that two others had failed on it; everyone predicted his failure. Although at first he paid for all he bought, some of his neighbors and friends gave him six months and others two years in which to go to pieces. They regarded everything he did as peculiar. How could a man run to the city so often and plant so many trees and make his business pay? While they remained at home to watch their property, he kept the pot boiling without brooding over it. Across the creek from his place there was a tract of 217 acres for sale for $21,000. He needed it in his business, and he wondered if he could not get it. He went to Suisun, where his friend Mr Staples, who knew his circumstances and ability, could advise with him. "Mr Staples," said he, "you know I owe $8,000 on the farm which cost me $10,000. That Ellsworth place is for sale for $21,000. Do you think I cán buy it?" Said he: "Yes, I think you can, but I don't know of anybody else who could." "I think I can too; I am going to do it." He went to see Ellsworth. "George, I hear you have sold this place." "I have." "The papers made out, any money down?" "No." "What's the matter with letting me have it?" "I told this man he could have it." "For how much?" "Twenty-one thousand dollars. He is to come next Wednesday." "If he does not come, may I have the privilege to buy?" "Yes." Something seemed to tell Hatch that he would get this land, and he did—$6,000 cash and a mortgage for $15,000 at ten per cent interest per annum. Borrowing $6,000 from the Suisun bank he made the cash payment. This was in November. He began planting fruit trees, and before the end of the next year it was all planted. The farm of William H. Turner lay to the east of the Ellsworth property, between it and a public road. If he could get a portion of it the road to Suisun would be much shortened; but when he tried to buy that portion Mr Turner would not sell. He had bought about this time 80 acres lying north of and cut off from his farms by Turner's. One day he was out on the hills looking across the property, and he said to himself, "I will have it." It is remarkable how much is already done when the mind is made up to do it. "But," thought he, "how can a man without money, in debt as deep as he can mortgage, ever buy a $50,000 farm?" That was the price Turner asked for his 237 acres, and he would not sell less than all of it. Sitting at table, a plan of purchase struck him; he knew it would work. After lunch he went over and saw his neighbor. "Mr Turner, what is the price of this place?" "Fifty thousand dollars." "I'll take it. What interest do you want on deferred payments?" "Six per cent net." "I will give you eight per cent gross. How much land is there included in these lots around the house, the barn, and outhouses?" "Thirty-three acres." "I will give you $50,000 for this place in three years, at eight per cent interest per annum, you to keep possession of and making your home on these thirty-three acres. If at any time during the three years I pay principal and interest you will give me a deed, you to have three months thereafter in which to remove." It was agreed, and together they went to have the papers drawn up. "Hatch," said the lawyer employed for this purpose, "I am sorry for you; this will break you; you have undertaken too much this time. I admire your pluck, but you are reckless." He was really concerned. Hatch only said, "We shall see." Within a year he had put out fruit trees on every acre not previously planted, excepting the ground reserved by Turner to live on. In the mean time, with a partner, he bought the Peabody farm, adjoining the Turner place. The man who owned it had purchased it for $15 an acre. It was as fine a piece of land as there was in Suisun valley, but he had not been able to make a living on it, and had mortgaged it up to $150 an acre. They paid $160 per acre for it, on five years' time, at eight per cent interest, payable annually in advance.

But now, within a week of the time when the payment was due on the Turner place, Mr Turner, who had agreed verbally with Hatch to extend the time another year, died. Fifty thousand dollars to pay in so short a time! How could he do it? Three different money-bags to whom he applied within twenty-four hours in San Francisco consented to come to his relief, but the relief they offered was much like death. Said Hatch, in the familiar way in which he addresses himself: "It may be you can do this yourself, without any particular sacrifice. Let me see." It was autumn. He went to a packing concern in San Francisco and sold them his canning fruit crop for delivery the following year, Hatch to receive $15,000 cash in advance. The heirs accepted the compromise of $10,000 down and a mortgage for the balance. Thereupon he bought his partner's interest in the Peabody place at $200 an acre, an advance of $40 over what they had paid for it.

Next he went to look for land in Livermore valley. Having examined the country, and liking it, he returned home, and shipped over 5,000 trees. He had not bought any land. If he could buy on reasonable terms he would do so; if not he would burn the trees and return home. He secured 62 acres individually and 81 acres in connection with a partner, and the trees were duly planted. After this, when riding in the valley one day, a certain place was offered him for $25,000. Says Hatch: "I will give you $30,000 in five years with eight per cent interest." "It is yours," was the reply. On the spot a man already associated with him agreed to take part in the purchase. Said he to a second man: "Do you want an interest? What do you say?" "I will have to think about it." "What do you want to think about? We can make the purchase price before the time comes to pay it." "Well," said he then, "we will do it." The 256 acres, excepting 60 acres already in grapes, thus added to his partnership belongings were put to almonds.

Mr Hatch had been noticing the land about Lodi for ten years, thinking in due time to plant an orchard there, but said nothing about it. One day, on the train, he fell in with a prominent fruit grower from Vacaville, who said, "I want to plant another orchard, a large one, a model orchard;" and he went on to explain, "I will tell you where I want to put it." At this juncture, as by thought transference, anticipating him, Hatch broke in: "I, too, want to plant another orchard, a model orchard, and I will tell you where I want to put it—near Lodi." "Yes, that is the locality." Late in the season of 1887 he purchased 640 acres there, on five years time, at eight per cent interest, on contract to put out 200 acres in trees the first year. Instead of this he put out the whole tract in different kinds of fruit trees. His pioneer work here resulted in bringing other enterprising fruit men about him, and soon another important fruit colony was brought into existence.

A year before this he and a partner had bargained for 283 acres in the San Ramon valley, Contra Costa county, for $30,000, on his five years eight per cent plan. After they had held the contract for a while, Hatch gave his partner $10,000 advance on his one-half and took the whole. Then in connection with three others he bonded 920 acres, at an average of $26 an acre, in Placer county, north of Rocklin and east of Lincoln. His next operation of the kind was to purchase 1,200 acres on Feather river, near Biggs station, in company with John Rock, the pioneer California nurseryman, at $75 an acre, 700 acres of which they planted in fruit trees the same season. In 1889 they bought 1,000 acres adjoining, and in 1890 had there 1,340 acres in trees, and over 1,000,000 trees in nursery. In all this it is evident that it is not the man who has money for investment who will do most in fruit growing in California, but he who knows what is in it.

Hatch and Rock have since bought in that vicinity 270 acres, and planted 220 acres of it. In October 1890, he bought 4,400 acres of land in Tehama county, near Cottonwood, proceeded to plant 500 acres of it to fruits, and took thither his stable of trotters, which had become valuable, and started a breeding farm. In November of the same year several associated with him to purchase and plant 400 acres of the best land in Yolo county, near Woodland, to fruits, under the name of the Yolo orchard company. In December following he contracted for the Rawson tract, of over 5,000 acres, three miles south of Red Bluff, and commenced planting fruit-trees on it.

This is a brief history of Mr Hatch's bold, original, and rapid acquisition and improvement of fruit lands. It is suggestive not only of his character, but of the conditions under which he has worked. When he bought his home plantation in the Suisun valley, he knew almost nothing of general farming, and nothing at all of horticulture; and it was well for him and the state that he was aware that he knew little about it. He was willing and anxious to learn, and he had no preconceived ideas that needed to be removed. "Who," thought he, "knows most about fruit culture in California? I'll go to him and learn." He knew that G. G. Briggs, living near Davisville, had been very successful. He went to him and said, "I want to profit by your experience." "Well, you have come to a poor teacher. I have reached no conclusions myself yet. It is all an experiment. But here is my orchard. Come with me and look at it. You are welcome to any information I can give you."

Hatch investigated to advantage, and came away with a knowledge of some things that should be done, and of other things to be avoided. Wherever fruit growers met he was sure to be there, with many questions to ask and not ashamed to ask them. The state horticultural society was his best teacher. But he studied and experimented for himself, and picked up suggestions in conversations with fruit growers. The result of his earnest and persistent study, and ceaseless activity in systematically applying the principles learned, is shown in the admirable condition of his orchards and his acknowledged skill in practical horticulture. His Suisun property is conceded by all to be second to no fruit farm.

Mr Hatch began his career in this industry inspired by a supreme confidence in the capabilities and destiny of California as a fruit producing country; his confidence in himself was unlimited, which has been pretty clearly shown. His faith in whatever his judgment approved is such that no obstacle has any terror for him. Never fretful, always buoyant, his presence is like the morning air or an autumn rain. However dark the shadows may close about him, he sees daylight somewhere. On his first trip into the Sacramento valley, as he crossed the mountains going down to Oroville, he stood above the clouds which, as the sun shown upon them, gave the wide extending area below the appearance of a sea of molten silver. Moving on down he became enveloped in fog, and by and by entered the stratum of pouring rain. But he had seen the silver lining with his eyes, and in his mind as he looked back up the mountains he could see it still; he knew it was there. Thus practically realizing the truth of the old adage for the first time, in this scene of nature's grandeur and eloquence, it made a profound impression upon him. Since then, never has a somber cloud crossed his way but his thoughts revealed to him its silver lining. Once his wife, ordinarily satisfied that whatever her husband did would turn out for the best, grew somewhat anxious over the thought of his indebtedness. "Mary," said he, "is there any one around here who is out of debt?" She named several. He helped her, and suggested a number of others himself. "Now," he continued, "which of them has a better time than we?" "No one," she answered, "but we want something when we are old." "True," he replied, "but had we not better die in the workhouse than live in one all our lives? There are those who owe nothing who are living in a workhouse, and do not enjoy themselves as well as some who are working for us for a dollar a day." "Yes, but something may happen, and then what will we do?" "Nothing shall happen." "How will you prevent it?" "I don't know how, but I will prevent it; I will wait until the emergency arises and then I shall meet it." Nothing serious has happened so far. Mr Hatch was ever ready to dominate any situation. He would borrow money and make it pay back principal and interest, and give him a fortune in improved lands. This was his plan; it fitted him and he succeeded in it. To the banker, Mr Robbins, who loaned him the $21,000, the Suisun farm had been offered, and he knew it to be a good investment, but he wanted two or three others to go in with him to share the risk. After the purchase had been made, the bank commissioners, this banker with them, accepted an invitation to a fruit lunch on the place. Speaking of the purchase, Mr Robbins said to the others: "I had a chance to get this property, and I have been blaming myself ever since because I did not." Mr Hatch remarked: "I can tell you why you did not and I did." "Why?" "Because you had something to lose and I had nothing." Another time, this same banker, while riding over the orchard, remarked: "Hatch, I should think it would worry you to look after this place." "I am not troubled half as much as when I had only 300 trees and did all the work myself. Now, I am in the city half the time spending your money." "But, Hatch," said he, "you ought not to tell everybody how much you owe." "I do not agree with you, though my wife thinks as you do. She says I send word to all the people I don't see to tell them of my indebtedness. But do you think any the less of me for not covering up what I owe? I would not trust a man who tried to conceal his affairs. I do not discuss my indebtedness for policy sake. I have never thought of it in that light, but if I were to choose, I would prefer such a policy as the best for getting more money when I need it." He once said his ambition was to owe $100,000, and he largely exceeded it.

The land Mr Hatch has acquired individual title to together with his share of partnership holdings, amounts to 3,170 acres, the value of which is very great already, and increasing steadily by virtue of the appreciation of all fruit lands in California, and more particularly by his skill and energy in improving and rendering them productive. Of the entire area given, 1,320 acres are planted in almonds, and the remainder in assorted deciduous fruits, with some oranges, olives, and figs. He prefers the almonds because they are almost a sure crop. You are not obliged to attend to them so promptly as in case of fruits that are bruised and spoiled by falling to the ground. You have a long season in which to handle them; you can begin early or leave them until late. Even if left to fall from the trees, they can be picked up, hulled, and bleached, and are uninjured. In the event of a strike one is not embarrassed. Having such a contingency in view Mr Hatch has his perishable fruits distributed around on his different farms. Almonds are an article of import, but they can be raised cheaply, and be made to compete successfully, without a tariff, with the almonds brought from Europe, if a low rate of freight exists between shipping points in California and the east. This, on the basis that California and foreign almonds are of the same quality; but, with the exception of the Jordans, perhaps, our almonds are superior.

The reader is asking himself, I fancy, how Mr Hatch has sustained himself in all these purchases; how he has escaped being crushed under a mountain of mortgages? In 1889, calculating that he had as much to carry as his income would stand, he ceased purchasing land, and devoted his thoughts to a reduction of his indebtedness. In 1888 he sold about $100,000 worth of produce, besides nursery stock, from the home place in Suisun valley, from the proceeds of which he carried on his other farms. The total acreage of the mother farm, that is, its total orchard measurement, including hill lands, is 933 acres--781 acres in trees, 350 acres bearing. In 1890 some of his outside property produced something, increasing rapidly in yield thereafter, and by the summer of 1894 every available acre that he now owns will be producing valuable crops. In the fall of 1889 he could see his business coming into shape; so that unless some catastrophe should befall him, which he deemed impossible, he would soon have his property paid for, in perfect condition, bringing in a large profit, and a comfortable balance to his credit in bank. This was the grand object to which he has labored, always in his own way, scarcely admitting to himself that when attained it might serve only as a point of departure toward even wider achievements.

His faith in fruit culture in this state was based upon his judgment of two things; first, that California could produce fruits equal to the best of certain kinds, and better than the best of certain other kinds produced elsewhere in the United States or abroad; and second, that there would be found an ample market in the east and Europe for first-class California fruits. The home market is unimportant now and will always be so, comparatively, as fruit-growing rapidly expands. The market of the eastern states should be cultivated by offering it none but the choicest fruits, shipped ripe, dried, and canned. The more such fruit is distributed in the east the greater becomes the demand for it. Raise and send to eastern consumers fruit that is better than their own, or that they import.

This is the problem already fairly solved, and no one has done more toward the solution than A. T. Hatch. California has a larger area than the Mediterranean regions, also soil and climate quite as well adapted to its varied horticulture. Why then should we not compete with that section successfully? The question of transportation is important; it is vital to a full development of the horticultural interests in this state. We are far from Chicago, the nearest of the large distributing points for the eastern market. Our fruit is taken over this long haul as cheaply perhaps as any similar service is done elsewhere in the United States, but as it is now the low water rates from Europe stand in our way. After all, when our railroads carry our fruit at the lowest possible rates they can make, competition will become profitable to us against the very best European, as they are now against all eastern, products. Should the railroads not see their own interest, to say nothing of that of the community on which they mainly depend for their general traffic, and fail to make such concession as the fruit business requires, the Nicaragua canal may furnish an exit for dried fruits in large volume; but, until refrigeration is much nearer perfection than at present, ripe fruits cannot go by that route.

Mr Hatch has endeavored to find a plan by which to ship our fruits ripe instead of green; two experiments with what is called the Allegretti plan have proved unsatisfactory. In May 1888 he went east and formed a combination to try the Hutchin's patent refrigerating car. Fifteen of these cars loaded with ripe fruit—ten from his place and five from Vacaville—carried peaches, pears, and nectarines across the continent in perfect condition; but the trial was not economically made, and it was not successful pecuniarily. Mr Hatch shipped sixty car-loads in 1889, with only tolerable results.

Still regardless of the friendly advice of those who wished him well, and the many reiterated protests of his despatcher and agents in the eastern cities; heedless of the warning of those who knew better than any others how great his losses were on account of the reluctance of eastern dealers to risk their money in the purchase of ripe, mellow fruit, because theretofore they had always handled green, hard fruit, he kept on shipping, and in 1890 shipped to New York city nearly 100 cars of fully matured, luscious fruits, telling his advisers that his intention was to prove the refrigerator car a decided success or a miserable failure. The result was profitable to him and to the fruit industry of California. Now all wanted that car, and some thanked him for not giving up to their solicitations. It may not be out of place to say that while Hatch was testing this venture with car-load after car-load of choice fruits at serious loss to himself, no other fruit grower or shipper would risk his fruit in any refrigerator car, all previous trials having been disastrous failures. Extraordinary credit is due him for the persistency of his efforts toward putting our fruits on the eastern markets in their perfection. In this, which was never done before, but henceforth will be done for all time, he was the pioneer, and made the way easy.

The comparison is still made, some times, between California and eastern fruits; while this state is universally conceded the palm for grapes, we sometimes hear our peaches, pears, and other fruits unfavorably spoken of as unsubstantial, watery, and deficient in saccharine matter, though most beautiful, large, and luscious in appearance. Such criticism comes only from those who have not tasted our choicest fruits. An incident in point: Mr Kirkman, comptroller of the Chicago and Northwestern railway, was talking at the Palace hotel one evening about California fruits. Said he: "I would travel fifty miles to get a few peaches such as I used to eat when I was a boy."

When he passed by the railroad station near Mr Hatch's farm, on his way east via Portland, a few boxes of fruit were handed into his car, among them two boxes of peaches, picked ripe. Upon his arrival in Chicago he wrote back in acknowledgment, expressing himself delighted with the fruit, all of which he had enjoyed. Referring to the peaches, he said: "When I was a boy I never ate, nor saw, nor even dreamt of such peaches."

In everything concerning the fruit industry or calculated to promote it Mr Hatch has taken an earnest and active interest. He has been a member of the state horticultural society ever since its organization, and was vice-president for several years. At a meeting of this society in 1886 he suggested for discussion the subject of fruit-shipping by fruit-growers. Subsequently, on a substitute resolution offered by him, a mass-meeting of the fruit-growers was called at the San Francisco chamber of commerce. As one of a committee of seven to which the matter was referred, he reported a plan to place the shipment in the hands of a general agent in the east to distribute the goods, and a local manager with assistants to attend to the business here. The other committeemen all differed from him radically, and great heat prevailed among the horticultural factions; but in a brilliant fight he won the organization he proposed, upon which followed his election as president of the California fruit union, in which position he had the pleasure of signing the contract with a man to act as eastern manager, whom he did not prefer on account of his personal reliability, but whom he knew, from the evidence of what he had already done in the business, to be the most competent man for the place. When the cry was raised, "This man has made a million dollars already handling California fruits in Chicago," Hatch replied: "That shows his ability to make money for us, if he will."

Four houses in Sacramento, in competition with the fruit union, combined and made up trains first, and shipped fruit all through the season. Had the man selected by the union to handle its goods in the east joined them, as he would have done had he not been allied with the union, it would never have run a car. Of the four Sacramento houses which did not realize that fruit-growers can put their produce on the market cheaper than any middleman who has to buy for shipment, one failed for $45,000, another had to borrow $15,000 to continue in business, and the other two acknowledged heavy losses. Within a year they withdrew. Three years after its organization, in 1885, the fruit union having changed so much, men being admitted to the board whose principal business was buying and selling fruits, and the majority of the board in favor of a plan that he was not in harmony with, Mr Hatch, three times elected president, resigned.

It was upon his suggestion that the local board of trade, in 1887, in Oakland, met and organized the California state board of trade, of which he was chosen president three times. Its principal object was to give correct information regarding the resources and products of the state. It has been an active, self-supporting body, and has distributed much information. "California on wheels," a special train, makes regular trips under its auspices to all the principal points of the eastern states. It has been very successful by its attractive exhibit of our products in its rooms in San Francisco, in interesting capitalists in the capabilities of our state and in enlarging the market for our fruits.

In the dried fruit union and in all other associations to promote the interests of the fruit industry and agriculture at large Mr Hatch has participated. He assisted at the organization of the Grangers' bank in San Francisco in 1875, the capital of which was furnished by farmers to be loaned among themselves as a protection against the wheat dealers. It served its original purpose as a protective measure, and grew to be among the first-class, general commercial banking houses of the city. Most of the time since the founding of the Grangers' business association, Mr Hatch has been one of its board of directors. Its object is the handling, warehousing, and selling of the products of farmers, and the purchasing of their supplies on commission, thereby enabling them to dispose of their crops to advantage, and to secure their supplies at reasonable rates. Its warehouse is built near Port Costa, 1,000 feet long, having a storage capacity of 50,000 tons. At the time it was organized a robbing system prevailed among the warehouses, which did not allow the farmers for the increased weight of wheat brought down dry and stored in a moist atmosphere. The association was started on the principle that the farmer is entitled to all the weight of the grain he deposits, and the additional weight acquired by it during storage. It has established a reputation for fair dealing, and has been a great benefit to grain growers in this way, but more generally so by setting up a standard to which other warehouses are forced to conform. It has proved a model institution of its kind. Mr Hatch is president of the Eureka roller bearing company, of the Hatch-Armstrong fruit and nut company, of the Citrus fruit company of Placer county, and of the Yolo orchard company of Yolo county, and his ability and reputation bring him into demand for many enterprises of general utility.

One of the board of commissioners of the Chicago world's fair, appointed by the governor in 1891, he was most energetic in the interests of California horticulture—which was characteristic. He has had too much public spirit and too much interest in his surroundings not to take a hand in politics. Curious to see if he could not make county scrip worth more than ten cents on the dollar, he ran for county commissioner of Nye county, and was elected. His official career of two years, during which, mainly by his efforts, scrip rose to 65 cents, was satisfactory to his entire constituency, excepting the county officials, who acted as though the system of public revenue was devised for their exclusive benefit. He had always been a republican, but refused to act with the republican party on certain notable occasions. For instance, when George C. Gorham ran on that ticket for governor he accepted a nomination for the assembly on the dolly varden ticket, knowing he could not be elected, and solicitous only to draw as many votes from Gorham as possible, that the republicans might be rebuked in the election of Haight, democrat. Nor had he any sympathy with such a republican as John F. Swift, who could not accept the nomination of a few Americans. The ideas of the American party suit him. He thinks that a foreigner should not be entitled to vote until he has lived as long in this country as our children are obliged to live in it before they acquire that privilege; for we have children fifteen years of age who know more of our country and its needs than a majority of immigrants. He is not a man to associate with demagogues, or to be influenced by political quacks. When, during the Kearney excitement, he was served with a notice to discharge his Chinese labor, he simply provided himself with a double-barreled shotgun, and putting it in the house where it would be handy, went about his business. He had been getting along with as few Chinamen as possible, on the principle that they were not a desirable element in our community; but threatened by the agitators, he told them boldly he would not suffer compulsion; he knew his rights, and would thereafter hire none but Chinese laborers. The horticultural society, succumbing temporarily to the anti-Chinese rage, met the delegates from the knights of labor and the anti-Chinese association. From these the members of the society received a list of printed questions, and a meeting was called to answer them formally. Hatch wrote out his answers on a slip of paper, which were to the effect already indicated, adding that he would not knowingly employ a knight of labor, which he considered only another name for striker. Referring to the conduct of the anarchists in Chicago, whose flag bore the emblem "bread or blood," he said: "This does not mean what it says. It means beer or blood—ninety cents worth of beer and ten cents worth of bread." He was congratulated by several men of note who were pleased to find that there was one who had the courage to say the right thing at the right time. But this part of the proceedings the newspapers did not publish—a fact quite significant of the times.

Mr Hatch's religion is not orthodox. He does not know a sect which has what he calls the essence of christianity in it; by which he means charity in its broadest sense, not the mere giving of alms—a sect which would not rather see a soul descend into hell, if there be a hell, than to see it ascend to heaven, if there be a heaven, out of any church doors but its own. His belief is "that nature doeth all things well." So far as he can see there is nothing to tell him that he will know more after he is dead than he does now; or that when he is once dead, he will ever come to life again in any form. His motto—all masons have the privilege of such a choice—is *dux vitæ ratio*, reason is my life guide. He belongs to the masonic fraternity, has taken the degrees of knight templar, and is a member of the order of nobles of the mystic shrine. He has taken the degrees in odd fellowship, but has not had any active part in filling the offices of the order. At the time of the knights-templar conclave in San Francisco, he was about to take the degrees of the Scottish rite, but the president of the horticultural society being absent, he felt it incumbent upon himself as next in authority, to make an effort, and that immediately, to have an abundance of every variety of California fruit displayed at the mechanics' pavilion, where the visiting knights might see it and eat it—at once a splendid act of hospitality and no mean stroke of business, accomplished, however, only by the most persistent and ingenious work to secure transportation and overcome opposition to the plan. He had to excuse himself for not taking the degrees. His apology was not graciously received, and he is still without the degrees, which recalls to my mind his stubborn ancestor, Hugh Peters. He did belong to the Lincoln guard of honor and the Knights commanders of the sun--an American order.

Though more temperate than most temperance people, he and his wife joined the good templars when they moved into the Suisun valley. He had always had an aversion to the traffic in liquor from seeing the effects of it in his father's business in Michigan, and from observing the effect of intoxicating drink upon those associated with him from time to time. He could have made money by the sale of liquors, but he would never do so for himself or any one else. In the good templar lodge, with fear and trembling, he rose for the first time to speak to an audience. After this first step, which cost him a greater effort than to buy a $50,000 farm without money, he gradually acquired assurance through experience, until he could stand before a sea of upturned business eyes as sturdily as in conversation with a friend—which is that he learned to speak to the people in a way of his own, keen and convincing, though his main strength is in running debate. Adapting action to his maiden speech, he made himself the nucleus of a band of workers who achieved a signal victory for local option in a community of winegrowers.

Since the 14th of March 1861, when Mary Graham became the wife of A. T. Hatch, she bore her part with him as only an ever-loyal woman could. His inconveniences and hardships were to her as her own. When she made his garments out of grain sacks she made her own of flour sacks. On the Sacramento river, with no protection but a faithful stag-hound, up one day and down the other with chills and fever, she bravely saw him depart for Marysville on her well day; and how welcome his return to her as she lay helpless on the day following. And what pioneering for a woman reared in the midst of comforts was that in the sage-brush camp in eastern Nevada, laborious and sunny through it all, the same in spirit then as before and since. Yet she had always a mind of her own, and differed from her husband in many things regarding his policy in business, but the difference was one of judgment only. Her parents Scotch, she was brought up to look upon debt as a fearful misfortune, and nothing but his ability to make an exception to this good old rule enabled her to look upon his extraordinary methods with any degree of toleration. Their only surviving child is a daughter, Mary E., born in 1868. In the method of her training the father's sound and unconventional ideas are apparent, to treat little children kindly, but with absolute firmness, as you would treat young animals, and as they grow in intelligence speak to them understandingly, always telling them the truth, fostering their self-reliance and independence, and trusting them. Let them know that in the main there is nothing they want that they cannot have, and they will not want what they ought not to have. At Snell's seminary the stereotyped questions being asked, "Mr Hatch, whom do you wish your daughter to receive and correspond with?" he replied: "If it is not asking too much, you may let her answer these questions for herself." After graduation, meeting the principal of the school en route to Yosemite, he inquired: "Miss Snell, did I make a mistake?" She answered: "No sir, your daughter is worthy of all confidence."

Sympathetic, cheerful, generous, and relying upon the inherent goodness of human nature to be responsive to right treatment, he understood men, and trusted them as he knew them. Hearty in his appreciation of a favor, it was his delight to repay one good turn with another, with principal and interest compounded. In the early part of 1891, more than thirty years since he had met with kindness from Kirkham, the fortunes of both having greatly changed in the mean time, the latter wrote to the former, "I gave you a job once. Can you do as much for me now. I am in great need of it." "Uncle Dave," then very old, did not have to wait long for an answer, and the response was warm and hearty. In order not to offend him by an offer of unearned help, he was given an easy berth on one of Hatch's fruit farms, the superintendent of which was instructed to put him on the roll on full pay; to let him do whatever he felt like doing, or nothing if he chose. Later still, the good people in charge of St Mary's hospital, San Francisco, in which "Uncle Dave" was a patient, were enjoined to care for him as though the old man were his, Hatch's, own father; to get and to do for him whatever might promote his comfort or pleasure, regardless of the cost, he, Hatch, footing the bills, whatever they might be. That he should thus more than cancel the obligation he was under to his old friend was to Hatch only a matter of course. His gratitude was spontaneous, and as his good humor always does, it overflowed, and he was glad of it.

Enough has been recorded to give a fair idea of the subject of this study in his characteristics and identification with the industrial progress of California. The few facts and incidents adduced suggest the rest. He has won a high place in the minds of the best men in the state by the force of what he has done, and the manner of his achievements compels admiration. How has he been able to accomplish results of such advantage to the community and benefit to himself? Nature endowed him generously with the capabilities of success, but this is true regarding others who fail. He succeeded by an industrious and tireless use of his talents. I find in him, first of all, faith—faith in California and in himself. This confidence in the one and the other has never been shaken. He has planted always for the future; he has lived a life of uniform cheerfulness. Never melancholy himself, but always shedding good humor about him, his presence is exhilarating. His buoyancy is a tonic. He is all courage and energy. As quick in action as in thought, clear-headed, unbending in will, tenacious of purpose, genial and frank, it is natural for him to lead. He takes great pleasure in trotting-horses, though he never races them for money. In 1890 he had over seventy of the best-bred trotting stock.

In physique Mr Hatch is large around the waist, short of body, and muscled like an athlete. His weight is 190 pounds. In his boots he stands five feet six inches. He does not lack in length of stride, and he is apt to make the gait a lively one for any person who travels with him.

The inevitable outcome of such experiences as these was to develop a character of marked originality and individuality. The man so made could not possibly be mediocre. In whatever community destined to move, he was certain to be conspicuous for good or evil. His genuine veracity, a strong sense of the true and useful in all things, prevented his falling into the latter category, and the impress of his character upon the events of the day have been in the highest degree beneficial. His influence has always been a healthy one; his prejudices were never narrow nor his views intolerant. He is a striking instance of the development of an independent mind in an atmosphere of untrammelled freedom.

In the perusal of this remarkable narrative we are able to distinguish between the bold achievement of inherent strength and the rash endeavor of mediocity. The benefit to the commonwealth of such a man is incalculable; for it is not in the beaten path that progress makes its giant strides, but in the overstepping of those conventionalties and traditions which tend to hamper all originality of thought and action. Many of those who thus enter upon untried fields must of necessity fail; but every such failure is a public calamity, and every such success a great public gain.

The lesson of this life is one of cheerfulness and courage, true Californian characteristics, though often impossible to reduce to practice. To a superficial observer it might sound a warning; but in reality that which in another would be recklessness in weighty transactions, in this case is rather the exclamation point attending ability and determination. His original business methods he is satisfied are based on true business principles. This man's "I will" signifies much, embodying as it does the power to determine and to do. Five years and eight per cent to most men would be a ruinous maxim; but to one possessing the native genius to double the value of the land within the time, the proposition is safe enough. As an axiom attending all effort, we may say that there is no vigor apart from independent principles.

CHAPTER VII.

LIFE OF JOSEPH S. CONE.

Lineage and Education—Removal to California—Mining and Trading—Ranch in Tehama County—Grain, Sheep, and Fruit Raising—Management of Estate—Wife and Children—Banking—Politics and Religion—Railroad Commissioner—Supplemental Report—Character and Appearance—Public Benefaction Contemplated.

Certain types of our American civilization have been selected for these volumes, the study of which should quicken the patriotism of a people, proud not only of the country's marvellous development, but also of the phenomenally large proportion of her citizens whose lives are worthy to enter into the permanent archives of our time and our national history.

Joseph Spencer Cone, of Tehama county, California, has been chosen as one of the representative men of his time and of his region and of his occupation. Although vice-president of a large banking corporation and the head of a large mercantile firm, he is essentially an American farmer, and proudly registers himself as such wherever called upon to state his occupation. The farm has been always generous and kind to him. Natural selection brought them together early in his life, and neither money changing, merchandising, politics, nor other allurements have ever shaken his love for the simple yet noble occupation of tilling the soil.

The lineage of Mr Cone is traced back to the days of the Norman conquest, embracing eight and twenty generations, among the last of whom were many fam-

J. S. Corn

ilies which cast in their lot in what were then the British American colonies. His ancestor, William de St John, whose name was derived from an ancient town in Normandy, was among the barons who accompanied William I. in his invasion of England, and held the post of grand-master of the artillery in the invading army. From him was descended Robert de St John, the second baron of Bassing, who lived in the reign of Henry III., and to the eldest son of the latter is traced the pedigree of the present marquises of Winchester. Thus the line is traced in almost direct succession until, in 1629, Elizabeth St John, in whose person was united the lineage of ten European sovereigns, was married to the Reverend Samuel Whiting, and with him removed a few years later to America, where she ended her days at Lynn, Massachusetts. In the following century the Whitings intermarried with the Brainard family, one of whom, named Martha, was wedded to Joseph Cone, a naval officer in the revolutionary war. His youngest son named Timothy, a native of East Haddam, Massachusetts, settled early in the present century near Marietta, Ohio, where he remained until his decease in 1864, his business being that of a merchant and farmer, and was esteemed as one of the most respected members of the community. Here was born on the 26th of August, 1822, Joseph Spencer, the seventh of his ten children. Of noble lineage, a more unaffected and thorough going American, despising cant and humbug and modern snobbery cannot be found anywhere.

Until reaching his twenty-second year Joseph worked on his father's farm, making the best of such scanty educational facilities as the neighborhood afforded. His choice inclined toward a profession, especially to that of the law, and had he selected this career, he would, beyond a doubt, have achieved success, for he possessed a full share of the qualities required for this calling, soundness of judgment and a ready wit, coupled with a remarkable force of character and an almost unlimited capacity for work. But this was not to be, and fortunate it proved for his adopted state and perhaps for himself, that, while losing a good lawyer, his country gained the assistance of one whose later services in developing the resources of northern California it is impossible to overestimate.

But Mr Cone was resolved to make his own way in the world, and as a beginning set forth in 1843, upon attaining his majority, on a trading exposition among the Cherokee Indians, with the results of which he had no reason to be dissatisfied. From that date until 1850 the incidents of his career contained nothing worthy of special mention. In the spring of this year the excitement that followed the discovery of gold being then at its height, he joined a company of adventurous spirits like himself bound for California, starting from Jasper county, Missouri, and following the banks of the north Platte to the neighborhood of Fort Laramie. Here he became wearied with the slow and tedious travel of the wagon-trains, and with four others, packing their effects on horseback, made their way to Green river, where, as he supposed, a settlement was near at hand. Meanwhile their animals had been stolen by the Piutes, and now provisions ran short, so that for a fortnight they were compelled to live on crow soup, to which were added a few teaspoonfuls of flour. At length, however, all arrived in safety at Nevada City, following exactly the route afterward selected by the Central Pacific railroad.

Here, and at Newcastle and Ophir, Mr Cone engaged for a time in mining with varying success. During the dry winter of 1851, while working in the placer diggings at Ophir, he became deeply involved in debt, as were his comrades, and indeed the entire camp, for while awaiting the rains their claims yielded them no revenue, and meanwhile the most extravagant prices were charged for supplies. For provisions of every description—flour, bacon, coffee, sugar, and even salt, the price was invariably fifty cents a pound, while for shovels, worth a dollar apiece, the charge was twenty-four dollars, and for a pair of common gum boots sixteen dollars. Within a few weeks after the rains had set in, however, the miners had cleared off their debts, and the more fortunate among them had accumulated besides a considerable surplus.

Mr Cone was now satisfied with his mining experience, and in the mean time had already found other occupation, making what were termed "shakes" out of the tall sugar-pine trees that grew in the neighborhood of Nevada City, and selling them for ten cents a foot, thus often earning from twenty-five to thirty dollars for a few hours' work. Later he engaged in the freighting business, conveying supplies from Sacramento, and selling them to miners at a handsome profit. Often, as he relates, when his stock was not all disposed of, he would pile up what remained in his cabin, and permit the miners to help themselves. In no instance was his confidence abused, though his stores were unguarded, and no check was placed on those who removed them, for always on the following Sunday they would return and pay in full for all they had taken. In this line of business he continued until November 1853, when he returned to his home in Ohio, disposing of his teams to his brother, who had recently joined him at Nevada City.

But like others of the argonauts who had enjoyed the freedom and excitement of pioneer life in California, he could not rest content amid the restraints and social conventionalities of an eastern community. In the spring of 1854, therefore, we find him on his way across the plains from Missouri, in charge of a band of cattle, which, after a six months' trip, he disposed of in the mining towns for more than double their cost.

After engaging meanwhile in various occupations, in 1857 he purchased land on Alder creek, Tehama county, California, where three years later he made his headquarters, stocking it with cattle bought in Tehama and Colusa, for which he found a market in Placer and Nevada counties. For the most part his business was profitable, although in the disastrous seasons of 1861–2 he suffered in common with other stock-raisers. Later he disposed of most of his herds, and employed himself in sheep-raising, in which industry he is still largely interested.

In 1868 he sold his property at Alder creek for $12,000, and purchased the farm of which he is still the owner, in the neighborhood of Red Bluff, at first consisting of about 16,000 acres, but increased from time to time by additional areas, until it now includes nearly 100,000 acres. This estate, which is now worth many times the original purchase money of $50,000, he acquired almost by accident. In that year its proprietors, Woodward and Northam, appeared before the board of equalization to obtain a reduction in their assessment to $50,000, which sum, they stated, they were willing to accept for the property. Meeting one of these gentlemen by chance, Mr Cone remarked: "That was all nonsense, I suppose, you were saying to the board to-day." "No, it is not," he replied; "so far as I am concerned, I would not take the trouble of travelling all this way by the stage to look after my interest in the tract." Thereupon Mr Cone offered to purchase the land, and after some negotiations the bargain was completed.

Here, indeed, was Mr Cone's opportunity. Hitherto he had drifted with no special aim beyond getting ahead in the world, his character no doubt developing, but his life was moved by no high purpose, nor was it put under the strain of any great undertaking. He now saw rising before his awakened vision a great estate. A large debt was to be incurred; new and larger resources than he had ever before been taxed for were demanded, but in his reserve power they were slumbering, and came at his bidding.

To most men there comes at some time the one opportunity which seized leads to fortune or to fame; the tide rises in the affairs of most men at least once, but it is the man who has the skill and courage to mount the crest and ride it whom we are called upon to enroll among the successful men of the world. Mr Cone saw the wave, mounted it, and has never been submerged by it.

I cannot stop to trace that struggle, full of lessons and rich with human experiences. Out of it came riches, honor, a well-rounded character, and a life full of personal achievements worthy of all praise. This is a history teaching by example; this is a leaf from the book of success to which the youth may safely turn for guidance. Mr Cone not only made the farm pay for itself, but its earnings have enabled him to very greatly improve the lands originally purchased, and to largely expand the original area, and develop one of the finest tracts on the American continent; and besides, the earnings of this land have made it possible to acquire other large and valuable properties in the county.

He seemed to have that mystical touch born to but comparatively few men which turns into gold what before appeared to possess but little value. With large unemployed means, he was able to take advantage of those opportunities always offering in periods of change, such as have occurred in northern California during the last six years, and his landed possessions, lying in one unbroken body, almost equal in extent a single state of this union which may be named. And yet it is all managed so quietly, and with so little apparent effort, that it is difficult at times to realize that but one hand is at the helm.

As a typical California rancho, one of the class soon to be dismembered and subdivided under our system of laws which admits of no entailment, there is perhaps no finer one in the entire state. It is situated on the east bank of the Sacramento river, and extends from a point near the town of Red Bluff, south, for a distance of about fourteen miles, and thence eastward, embracing the entire valley lands and reaching into the foothills back against the Sierra for a distance, varying in width, from some ten to twelve miles, with an area of not far from 100,000 acres. The quality of the soil and its location adapts the property to all kinds of farming operations, and every variety is found conducted on a very extensive scale. Two fine mountain streams, the Antelope and Mill creeks, come from the Sierra and cross this property, emptying into the Sacramento river. Their waters can be spread upon every inch of the valley lands. The farming operations are conducted from two central points, about six miles apart.

The movement of men and animals and implements necessary to plant, cultivate, and harvest the crops upon this vast property as they go from these headquarters, resemble more the movements of great armies than any scenes with which ordinary farmers in other countries are at all familiar. At different points and in localities specially adapted to the purpose, are large orchards and gardens, carried on to supply the neighborhood and for shipments abroad. While most of the products known to farming life in California are grown here, the chief product for market is wheat, of which he produces 125,000 bushels. Connected with the farming operations, and conducted on quite an extensive scale, are also sheep and wool interests. There are at present grazing upon the foothill lands, on the eastern boundary of the tract along the mountain side, about thirty thousand sheep. These sheep are brought from the mountains, from their summer range in Lassen county to the rancho in the fall of the year, when they are put upon the stubble and are sheared, doctored, and grazed, until the feed of the valley is eaten off, then they are removed into the hills, by which time the fall rains have brought on the green grasses. They are here grazed until the spring grasses begin to dry. Meanwhile the lambing season has come and passed, the lambs are marked and the sheep are redipped and branded, and again taken to their summer range in the mountains. This is one of the most interesting as well as profitable branches of the extensive operations carried on upon this farm. The wool output of the rancho is about 275,000 pounds. Some cattle are raised upon the place, but to no large extent, Mr Cone's fancy running more particularly to sheep, in which he never lost faith, even under the depressing influences of the reduced tariff. He kills, packs, and cures annually about five or six hundred head of hogs. In later years, although somewhat reluctantly, he is turning his attention to fruit-planting, and on his farm are now to be found, under successful cultivation, almost all the fruits known to our wonderful climate, including oranges and lemons, among citrus fruits, and all of the deciduous fruits grown in the state of California. He has one young orchard of Bartlett pears coming on, of ten thousand trees. Like all the wheat-growers and stockmen, he expresses some doubts about the ultimate profits of fruit-growing, and yet has yielded to the general judgment upon that subject so far as to plant quite largely.

On Antelope creek he has recently erected a water-power, and is now lighting the town of Red Bluff with electricity over a circuit of about sixteen miles from this power and he also lights his residence and barns by this means.

A great deal of the land now under cultivation was densely wooded when he took possession of the property, and covered with underbrush; but he has cleared it off at great expense, and he is even yet carrying on this improvement and clearing land that costs from fifty to seventy-five dollars to bring into a state of cultivation. Large oak-trees are standing at intervals over these valley lands, which are left both for their occasional crops of acorns, and as adding a charm to the landscape effect Indeed, looking over the property from a distance, it presents more the appearance of a cultivated orchard or a park than of extensive wheat fields. Probably no less than one hundred men find employment on this property throughout the entire year, and during the season of their busiest work, the harvest and planting seasons, there are not often less than five hundred men engaged in the various occupations. The striking feature in the management which presents itself to an observer is that all of this great work goes on with little friction and display, and with little red tape. The usual corps of superintendents and foremen found on many large properties of the kind are here entirely wanting. No high salaries are paid; no complicated book-keeping, and no series of "subs" through which orders are to pass before they reach the men who are to execute them. The management is in striking contrast with some of the large ranchos in the state, where there has been much less prosperity; and to this direct and efficient management must be attributed largely the success of the proprietor. An account of all the sales, settlement with the men and their payment, keeping accounts with men, and in fact, the entire book-keeping of the place is performed by a man whose wages cannot exceed over sixty or seventy dollars per month, and who does a great deal besides attending to that part of the business. The efficiency of the men in all branches of the work is attributable not to a system of surveillance by various head men and foremen, but to the accurate knowledge of details of the proprietor himself, and his unvarying judgment as to when a man is doing an honest day's work, and is doing it rightly and properly. All the employés feel that they are liable at any moment to have their work subjected to the scrutiny of the proprietor, and aside from the advantages which this system gives, of obviating all collusive arrangements between the employés and the various foremen and superintendents, there is the feeling among the men that the approval or disapproval of the proprietor himself is liable to be given every day. With all these apparently great business burdens upon his mind, no man takes life seemingly more easy than Mr Cone himself.

He visits his store and bank in town nearly every day, with which he is in telephonic communication from his residence, as he is also with the lower headquarters of his farm.

He takes a very lively interest in all local affairs of the county, and is quick to respond to all efforts toward populating northern California, and is, in fact, one of the most enterprising men of the county.

Few men reach the highest walks of life before marriage. Mr Cone had only partly formed his character and partly laid the foundation for his fortune before he turned his attention toward matrimony. While living upon Alder creek, in Tehama county, in the year 1867, finding that it was not good to live alone, he went back to his native state, where he married the daughter of Colonel Reppert, a young woman of cultivated tastes, who returned with him, and shared the vicissitudes and deprivations of a social life incident to stock-raising and stock ranchos in the earlier days of California. She has been his constant companion through all his experiences and successes, and has borne to him two daughters and one son, who are promising scions of a parentage representing the better type of American citizenship. These children have been given such advantages as our state has afforded consistent with the desire of their parents to have them as near to them as possible. They attended school at the local academies in Red Bluff in early years, and later were sent to the higher schools of San Francisco and Oakland.

The only son, Douglas S. Cone, was married in January 1889, and is now living with his parents, and doing his part in managing the property. With the view of promoting the establishment of a lumber enterprise in the vicinity, Mr Cone in 1871–2 extended aid to the founding of the Antelope Flume and Lumber company. This was the first attempt to transport lumber in California by means of the V-shaped flume. The enterprise failed in 1874, and Mr Cone had to take the property for payment. He operated it one year, and it finally fell into the hands of the Sierra Lumber company, who are now successfully carrying it on.

In the following year, in conjunction with Charles Cadwallader, he established at Red Bluff the bank of Tehama county, with a capital of $300,000. Of this institution he has been vice-president since its organization, and has taken an active part in its management. It is one of the most successful banks in the state. He is also the head of the large mercantile house of Cone, Kimball, and company. Of the details of the business he knows nothing, but as to questions of policy—when to buy and where to sell products such as wheat, wool, and fruits, in which they deal largely, his partner, Major Kimball, finds in him a wise and sagacious counsellor.

A man of positive character in the conduct of business and in the affairs of life, like Mr Cone, is expected to have decided religious and political opinions.

In politics he has been an advanced republican, and in the early days of the rebellion, when public sentiment in California was very much divided, and the southern population that had flowed to this coast threatened to take our state into the ranks of secession, Mr Cone was very pronounced and active in his efforts to stay the current of disloyalty that was running through the land. He does not think that the time has come, or will ever come, when our government can afford to forgive the great crime of rebellion, for to him it was a crime. While he has a side of his nature as gentle and as soft as a woman's, and is open to sympathy and kindliness, yet he can never be made to feel that those who participated in the rebellion should be placed upon the same footing and accorded the same honors, and receive the same rewards from the government, either as pensioners or otherwise, as those who fought to defend the union. The sentimental side of his nature, while very strong, would never so far take possession of his sense of justice and right as to permit the line between loyalty and disloyalty to be eradicated.

Upon the great question of protection to American industries, which in more recent years has come to be the principle of the republican party, as contradistinguished from the doctrine of tariff for revenue only, or of free trade, his opinions are very pronounced and very strong. He attributes the enormous expansion of our home industries, and the great prosperity that has attended the country since the war, to the principle of protection. No amount of "soft-sawder" could make him see that he could successfully grow wool in competition with the pauper labor and untaxed grazing lands of other countries; nor could he be made to see why the woollen industries of the country should be ruthlessly sacrificed to the doctrines of free trade while other and less important industries were receiving the protection of high rates of tariff. His recent trip throughout the countries of Europe has given him opportunities to observe their methods, their rates of wages, and the chances for competition which the Americans have over the people of other countries, and with his wonderful power for practical application of facts, the argument to his mind in favor of protection seems overwhelming.

Upon the question which, in his mind, is soon to be the most important one in politics, to wit, that of foreign immigration, his views are equally pronounced. He is a thoroughgoing American, and believes in restriction of immigration and radical changes in our naturalization laws. He thinks that our population is now so great, and our industries of every description so well established, that whatever argument once may have obtained in favor of unrestricted immigration, in order to people the country and add to the number of wage-workers, that day is passed and that it is the highest duty of the government now to provide for the coming millions of our own race, who, in the natural course of increase of population, must demand the right to our soil and to the fruits of our union.

Upon the question of religion, while not a communicant of any church, his convictions are very strong, and his reverence for religion and religious work is undoubted. He contributes freely and liberally to the support of various churches ; but inclines personally, by reason of early associations, and connections of his parents, to the presbyterian faith. If he had spent his years in the older and more populous communities of the country, the bent of his mind, and the natural gentleness of his disposition, and the impulses of his emotional nature would have doubtless led him into active relations with the church. Living in California, remote from churches, and in regions where churches were not generally established, he did not feel impelled to make any connection with any church body. But he is in no sense a so-called freethinker, or disbeliever, but thinks on the contrary, that men of the class of Robert Ingersoll, and other promoters of unbelief, are doing a great harm in the world, that they are undermining and overthrowing a faith which brings comfort and consolation to many, and are offering nothing in its place, and his mind revolts at the harm thus done.

Mr Cone was never a candidate for office and never held office but once. He was one of the first board of railroad commissioners selected under the new constitution of 1879. His connection with that board deserves more than a passing notice. It was an important public trust in the performance of which he did not escape public criticism, however undeserved it was.

Under the new constitution, adopted by the state, which went into effect in 1879, a new and altogether untried experiment was entered upon by creating a board called the board of railroad commissioners; who were invested with extraordinary powers upon the subject of establishing and regulating charges for transportation of passengers and freight by railroad and other transportation lines. In every other state in the union these boards are the creatures of the legislatures and possess only such powers as are conferred upon them from time to time by the legislative body; the legislature always reserving the right to ultimate control.

In this state, however, under the excitement which prevailed among the people on various subjects relating to the internal affairs of the state, among them being the important question of transportation, a distrust of the legislature had grown up, and instead of bringing to bear, as was done in other states, a public sentiment, ultimately by its force compelling the legislature to yield to the demands of the people, they entered upon the novel scheme of taking all this power from the legislature and conferring it upon a board of three persons, to be elected by the people, and this plan was ultimately worked out in the new constitution, so that there no longer rests in the legislature any power whatever to legislate upon this very important subject, but all authority is vested in this so-called board of railroad commissioners.

Both by the constitution and the act of the legislatures subsequently passed to give effect to the constitution, the broadest and most comprehensive powers were conferred upon the board, embracing legislative, executive, and judicial functions; the power to make the regulation, to interpret it, and to execute it. No thoughtful man can help at least doubting the wisdom of such a great departure from the usual course of legislation, such an absolute surrender on the part of the people, of powers which can only be regained through an amendment of the constitution. And under all lies the graver doubt of the power of the people to create, practically, a fourth department of government, while declaring that all power is vested in but three departments.

The legislature had attempted reforms in railroad management, through the boards of its own creation, with limited and practically emasculated powers, and nothing had been accomplished in the way of relieving the burdens believed by the people to be put upon them by the transportation companies. The public mind, however, which had inspired this remarkable departure and had created this unprecedented body, was not in any temper calculated to do justice to any persons who might take hold of the very complicated subject and attempt to bring about an intelligent reformation of the alleged and real abuses.

The surprise to Mr Cone when he found himself the republican candidate for railroad commissioner from the first district was very great, because he had never held public office nor been a candidate, either in this state or elsewhere, for any office whatever. In casting about to find a person in whom were to be found those qualities of honesty, firmness, and good judgment necessary to the performance of the high duty soon to be devolved upon this board, the republican convention, with but little dissent, turned towards this unambitious, modest, yet most successful, man of business. There never was any question after the organization of the board but that he was the strongest and ablest man upon it, and he necessarily became its president. There are few more conspicuous public offices in the state. Much was expected of the members, and had Mr Cone given way to any ambitious motive to reach the governorship in this state his pathway was simple and easy; by assuming an attitude of unrelenting hostility to the transportation companies. There is no doubt but that the mass of people would have justified any arbitrary action, however unjust, without stopping to reflect that serious, complicated, and protracted litigation would have inevitably followed, and no practical results have been attained.

Mr Cone, however, was not the type of man to give way to any such unworthy motive, or to make his office the avenue of self-aggrandisement. He had lived a simple and unostentatious life, and no hope of political preferment could shake his determination to continue to act as he always had, with a view to the rights and privileges of others. He chose a brave, conservative policy, from an honest sense of his responsibility and a fearless resolve to do as nearly right as it was possible for him to see the right. No one of the thousands of early and later Californians who have had long and intimate business and personal relations with him ever gave a second thought to the brutal suggestion that money influenced him in the discharge of his duties. He was a rich man when elected to office, with an income from his established business of over $50,000 per annum; his tastes and wants were as simple as a proper regard for economy would exact from a person of one-fiftieth his income; no amount of money could have contributed in any way to his happiness or pleasure in life. In the absence of motive and proof, and in the light of the well-established points in his character, it would be the grossest injustice to impute any dishonest thoughts, from first to last, during his short and only career as a public officer. No clearer or more satisfactory statement of the moving causes and underlying motive of his policy can be given than is presented by the supplemental report which he made to the governor in connection with the more elaborate report of the board of the third and last year of their transactions. It is just and fair, and is due to Mr Cone in any study of his character and life, that this report should be given at length.

"I have united with my remaining colleague in the foregoing report," says Mr Cone in his supplemental report, "because I believe the general principles therein set forth and discussed are in the main right, and should control the action of any one who sincerely desires to be guided by just and correct views of the high and responsible duties devolved upon this board. It will not surprise me to find those principles controverted by persons who have not time or disposition to examine them in the light of experience and the laws governing commercial relations throughout the world. But sooner or later, whatever may be the specific action of my successors in specific cases, they must, to effect permanent good, hold themselves amenable to that experience and those laws. While this is true, I have been governed in some respects in my action as commissioner by views not always shared by my colleagues, but which I believed would result in most usefulness to the public. It is to give expression briefly to some of these views, and to place more specifically before my constituents the governing motive of my action, that I submit this supplemental report.

"Without doubt the public would have applauded the board if it had, without investigation or consideration, reduced all fares and freights one-half. While recognizing fully my obligations to the people who elected me to office, I could not bring myself to believe that they had a right to expect ignorant and inconsiderate action at our hands, or action grossly unjust to the transportation companies. I believed then, and I believe now, that a reduction was rightfully demanded; but I did not know it, and could not know it without investigation, nor could I know to what extent reduction should be made, or in what manner it could be best and most speedily attained.

"My first efforts were directed to the question of cheapening the cost of getting the products of the soil to market. As a farmer myself, I had already found out that the producer in California was working under the disheartening fact that the great grain-producing region of the northwest, as far out as Dakota, was laying its products on the docks at Liverpool for so much less than we from this coast that we could not enter that market in competition at all, and often only at a loss, when farmers from that region were making large profits. It was plain to me that our producers travelled so comparatively little by rail that the gain to them by reducing fares was of trifling importance compared with reducing their freight charges on products of the soil, and hence this question received my first attention.

"How to bring about relief in this direction, whether by litigation or by arbitration, had also to be determined. On this point, at least, one of the board differed from me. He was at that time opposed to having anything whatever to do with the railroad companies. His idea was to make reductions by the exercise of the powers of the board, and leave the consequences to take care of themselves; if litigation ensued, and our whole term was frittered away in the courts without results, nobody could blame the board, and so long as not blamed it would be measurably successful. I believed that by judicious, fair, and impartial treatment of the transportation companies much could be accomplished, and if not all we might wish, it would still be better than the loss of everything by the law's delays. The advantage of treating with the companies, instead of resorting to the courts, may be seen from the result of the suit brought to restrain the board from regulating the coast lines of steamships. That action was brought in December 1880 in the United States circuit court, and was soon after argued and submitted, and no decision has yet been rendered. When rendered, an appeal to the United States supreme court will involve one or two years more delay. Acting under this belief, I sought at once to acquaint myself with the disposition of the chief transportation company of the state towards the board, and whether its purpose was to resist all reductions, or whether it was willing to make concessions to the industries of the state. I found that great and hitherto all-powerful corporation disposed to enter upon the question of reduction of freights apparently in good faith, if they could feel assured of being met with like good faith by the board. They did not want to be tricked into making concessions which the board would use only as a basis for still greater and arbitrary reductions. I saw no reason why I should not, as a public officer, treat these corporations with fairness, and negotiate terms for the people if I could—falling back upon our powers whenever compelled to resort to them—and I saw no reason why I should not avail myself of every opportunity afforded me by resort to the companies' records at their offices, and by intercourse with their employés, in order the better to understand the complex duties of my office. In this view I was sustained by one member of the board only, the other apparently preferring to accomplish nothing except by absolute non-intercourse and by arbitrary exercise of power.

"The board visited nearly all the shipping points in the state; held public meetings to which all persons were invited; the wants of shippers were inquired into and their importance considered. Meanwhile every opportunity offered by the companies to disclose the extent to which they would concede the terms asked by the people was taken advantage of, and a body of facts thus collected enabled a majority of the board to prepare a schedule of reduced freights, which, however little known to or appreciated by the people, I have the satisfaction of knowing has saved and will hereafter save to the producers very large sums of money. This schedule, after considerable hesitation and some reluctance, was consented to by the chief railway company, and was put in operation without resort to the courts, on June 1, 1881. It embraced the principal products of the state, to wit:

Wheat, corn, barley, oats, rye, flour, and mill stuffs, cattle, sheep, hogs, and wool. Any one who will take the trouble to consult this schedule, or will compare his shipping receipts for 1880 with those of 1881 (after June) will see that he has a net gain, through the interference of this board, of from twenty-five to thirty-three per cent. If he will compute the saving to the people of the state he will see that it amounts to several hundred thousand dollars per annum, and this advantage will increase every year. I desire also to say, that in nearly every instance the reduction was entirely satisfactory to the people who came before us, and was as great as was demanded by them. This schedule went into force without the assent or coöperation of the minority member of the board, who still adhered to his purpose of doing nothing to which the transportation companies would assent.

"Parallel with our investigations upon this branch of our duties, we were also gathering facts and acquainting ourselves with the more difficult question of a general freight tariff on goods shipped to the interior, and upon the question of fares. Upon the general classification of freights we were met and beset by the most complex difficulties, and I regret that so little substantial good was accomplished in that direction.

"Upon the matter of the reduction of fares we had the same friendly assurances from the companies most interested that we had received as to freights and products of the soil, but we were besought not to press action upon them concurrently with freight reductions, because of the disastrous effect it might have upon their struggle to complete their through line to the Atlantic seaboard. This latter great enterprise I had come to regard as the most important source of relief to the chief industry of the state ever yet undertaken. We had long been completely at the mercy of the ocean vessels, and by combinations of tonnage our farmers were practically working for speculators, and were absolutely helpless. The cheapening of freights to the bay of San Francisco only added to the gains of tonnage buyers. The Liverpool market had no controlling interest on prices here, but they were regulated by ocean charges. We saw the western farmers making money while we were cultivating the soil and shipping our vastly superior wheat at a loss. I saw no relief except through the controlling power of the Southern Pacific railroad; and being assured that by this route wheat could be laid down in Liverpool for a rate never afterward to exceed fifteen dollars per ton as against twenty-two and twenty-five dollars per ton, which we had been paying by ocean, I felt it an imperative obligation upon me to abstain from any official action which might seriously cripple this means of relief, and destroy a possible saving to the state of from $3,000,000 to $7,000,000 annually in the near future. It seemed to me suicidal to needlessly impede the progress of this important outlet.

"After, however, the southern route was assured, and the non-action of our board was no longer important, I renewed my efforts to have the companies revise and reduce fares, and I was informed that it would be done. In nearly every portion of the state they established a practical reduction by introducing reduced round-trip tickets and putting on second-class cars; still this did not seem to me to quite meet their duty to the public or their promises, and at length, despairing of securing the reduction without the exercise of the power of the board, I introduced a resolution fixing the maximum of four cents per mile.

"The efforts I have made to secure the passage of the resolution are fresh and need not be recalled. I had no doubt that I could count now upon the coöperation of the minority member, who had all along affected to want to do what this resolution proposed. He became the candidate of one of the political parties of the state for governor and was elected. All his previous pledges, and every sense of duty, seemed to me to require that he should remain on this board until some action was taken as to fares. Numerous and high precedents were at hand for his continuing to exercise the powers of railroad commissioner up to the time of his induction into office as governor; there was no possible or conceivable impropriety in it whatever; the people had a right to expect this of him; he, however, made haste to resign, and at the last I stood alone to record my vote for a reduction of fares.

"In taking leave of my office as railroad commissioner, I do so with a consciousness of having endeavored to serve the people faithfully as far as I could from my standpoint. Freights have been very materially reduced, and fares also to a large extent. I fully realize that much more remains to be done, but looking back I am still convinced that had the board forced the issue into the courts we would be to-day where we were three years ago, and our producing classes would have suffered immeasurably more than they have by the course pursued. However permanent and substantial have been these benefits to the public, I cannot hope at this time for a fair judgment from a people who have so recently elevated to a high place the one member of the board who has refused to take part in the only measures of relief proposed, and who at the last turned away from performing a signal act of duty plainly incumbent upon him. If I was mistaken in my judgment as to how best to perform my duties, I can in all faith submit the rectitude of my conduct to the scrutiny of the world.

"J. S. CONE."

Mr Cone brought to the performance of his duties no practical knowledge of railroading or railroad operations, or the so-called science of transportation, or the laws governing it. Neither had his associates, General Stoneman and Mr Beerstecher, any knowledge of the subject. They found themselves with these vast powers, and with our entire system of transportation to a degree at their mercy; and with the exception of Mr Cone there was no other member of the board who can be said to have had any wide experience in affairs, and at least one of them had none whatever. Naturally Mr Cone became president of the board, and by reason of his larger experience in business affairs, and contact with business men through his varied interests as rancher, merchant, and banker he became the leading spirit of the board.

A reduction in freights amounting from twenty-five to thirty-three per cent upon the chief agricultural products of the state secured by the board was a prodigious gain to the people, and as, under the law, freights once reduced could not be again raised above the point of reduction, this immense gain was permanent. It needs but little reflection to see how great this advantage was, and if nothing more had been accomplished by this board in its three years' official existence, the people of this state can well afford to acknowledge a debt of gratitude for such services; but a great deal more was in fact accomplished. A great many inequalities were corrected in their freight schedules, and practical reductions secured. That Mr Cone's efforts to secure reductions in fares, as he explains, should have been ultimately thwarted through the finesse of the transportation companies, the unkindly, unnecessary, and precipitate resignation of General Stoneman, together with the persistent absence of the commissioner Beerstecher while Mr Cone was urging a vote on his proposition to reduce fares to a uniform rate of four cents per mile, formed the chief and only great disappointment of Mr Cone's term of office. He found himself at last standing alone, deserted by the member who all along had insisted on this very reduction, and unable to secure a vote by reason of deliberate absenteeism of his other associate, without whose vote he was powerless to secure official action. His efforts, however, in that direction must have created some impression upon the transportation companies, and must have put them in a position where they dare not long refuse to make this concession, for it is known that within a few months after Mr Cone's term of office expired the railroad company did in fact adopt a schedule of uniform rates on the basis of four cents per mile. The board succeeding the Cone board, and composed of Carpenter, Humphreys, and Foot, all of whom, except Mr Carpenter, differed from Mr Cone politically, in their annual report to the governor have this to say of Mr Cone's efforts in securing a reduction of freights:

"Prior to the present term of this office but one schedule of charges for transportation had been established or adopted by any commission in this state. That was introduced by Commissioner Cone, and went into effect on the first day of June 1881. It made reductions of from twenty-five to thirty per cent on preëxisting rates for the carriage of wheat, corn, oats, barley, flour, millstuffs, cattle, sheep, hogs, and wool. It went into force with the reluctant acquiescence of the leading company in interest; for that reason it was probably less appreciated by those who hold that thus often was created prolonged controversy, or to provoke litigation. But it was none the less a substantial benefit."

It is, perhaps, a source of gratification to Mr Cone in looking back over the years that have elapsed since his retirement from office, as it must also be to his many friends, that his successors in the last five or six years—able and conscientious though they were—have found this perplexing question of transportation in all its ramifications so difficult that, with all their endeavor, there has not been so relative a change to the benefit of the shippers and patrons of the transportation lines as there was during his term. Each successive board has only confirmed the belief always entertained by Mr Cone's friends—that during his term of office he entertained as broad and comprehensive a view of the question, and acted with as great intelligence and sound judgment as have been brought to bear on this very complex question by any of his successors. The hot blood which ran through the political currents of Mr Cone's time has greatly cooled, and the agrarian sentiment which would have confiscated the transportation properties of the state in those days is fast settling down into the belief that the relations existing between the people and the common carriers of the state have to be considered and dealt with as any other relation, and with the same spirit of fairness.

With that unusual ability for directing affairs and placing in charge men who are competent to carry out his plans, notwithstanding the long and frequent periods of absence from business at his home in Tehama county while railroad commissioner, Mr Cone's private business affairs progressed with but little apparent diminution of favorable results. The same habits of economy, the same simple tastes which had characterized the man before, attended him throughout his official life and accompanied him back to his retirement to private life; as before, so afterwards, the same business success attended him. The mercantile business, of which he was the head; the banking house, of which he was the main prop; the farming operations, which were among the largest carried on in the state, continued to increase in importance and magnitude, and into their management he dropped again as naturally and easily as though he had never been absent, and no one would have supposed from any change in his manner or habits, that any newer or broader experiences had been introduced into his life.

The most striking instance of his tenacity of purpose, self-control and strength of character is found in the fact that he has been for several years a great sufferer from a kidney trouble, which finally compelled him, a year and a half ago, to suspend all business management. However, after most men would have surrendered and given up the fight, he continued to manage his affairs, without even his most intimate friends realizing how great a sufferer he was. But when the time came and he was fully convinced that he must seek relief, he acted with that same promptitude and determination that has always characterized him, and upon very short notice to his friends, and with a feeling that he might never return again to behold the monuments of his enterprise, everywhere to be seen in this country, he sailed for Europe, and after an absence of six or eight months, returned very much relieved, and to all appearance has many years of usefulness yet before him.

In personal appearance, since his recent illness, Mr Cone has very much changed. Six or eight years ago he was a man quite stout in appearance, sturdy looking, and slightly inclined to portliness. His height is five feet seven and a half inches, and his present weight is 165 pounds, a falling off of thirty or forty pounds. His features disclose the firmness of his character, and at the same time present a kindliness and gentleness of disposition apparently in contradiction to the sternness of his character in matters of business. In manner he is quite unobtrusive, with a gentle voice, and rarely giving way to impulsive expressions, or evidencing mental excitement. His great power of self-control holds in restraint whatever of the impulsive nature there may be in him. He converses well, expresses his ideas strongly and logically, but has never attempted and probably would not succeed if he did attempt to express himself in a public speech. He writes well, and with considerable force and vigor, but concisely, and very much as he talks. He has a finely shaped head, and a forehead indicating intelligence, with an exceedingly bright and expressive eye, of a dark brown color. His hair, originally dark, is now frosted by the touch of time. He is a man very tenacious of his rights, and quick to resent any encroachment upon them. His success may be attributed, perhaps, as much as to any other cause, to the fact that he looks after the small things, which make up a part of the duties and business of his life. He insists, in business matters, upon a strict compliance with agreements, even in the simplest matters, and yet no man is more generous or more ready to compromise on broad principles in matters of larger moment. His memory has been very tenacious, although losing some of its power in later years, and this has given him great advantage, because he was rarely found at fault in matters resting with the recollection. In all his transactions, this exacting disposition which insists upon a strict compliance with agreements has created an impression upon some that he was unnecessarily harsh and unrelenting in business matters; and yet those who have observed him most closely, and have known him best, concede that, after all, it is but an assertion of that principle of justice which runs through all his business relations. He is as quick to yield a point when he is wrong as he is to insist upon it when he is right, and his readiness to make liberal use of his money for the benefit of others, when the occasion offers, shows that his method of business is more the result of a fixed principle of action than of any harsh or severe disposition of mind. As an associate or partner in business, no man could be more delightful. He gives to his associate his entire confidence, never for a moment questioning his motives or his integrity, and only contending with him at times on matters of business policy.

In his relations with the bank he has often been called upon to take a responsibility, which other officers of the bank would not take, when the fate of some customer hung upon the decision, and in many such instances, well known in Tehama county, his judgment of men and of their ability to pay, and their honesty, has enabled him to save many persons from financial disaster by timely aid through the bank, himself taking the responsibility to order the loan, and in no instance being deceived.

Another index of his character is seen in the strong friendships which surround him, and are drawn out by those who know him best. They will go to any trouble to serve him, not only because they are glad to submit to the leadership of so strong and well-developed a mind, but because of the friendship and affection for the man himself. It would be strange if such a man escaped the enmity of others, and he has not escaped, but a man who acts from principles of right and justice, as he endeavors to do, rarely has many, and Mr Cone has but few who can be said to be personal enemies.

He has never used his power and influence and money to oppress others. In the main his operations have been conducted and his money has been let in avenues where he was not brought in conflict often with the interests of others. On the contrary, in later years, since he has had an abundance of capital to use in his own business and a surplus besides, circumstances are numerous where he has, by timely aid and by interposing when men were in financial trouble, been of very great service to his neighbors.

A strictly moral man, in every sense of that word, leading an upright and blameless life, always just in his dealings, and ever ready to lend his advice and counsel, and often his purse, he has been consulted by many people in their private affairs, and has done much good as counsellor and friend. Because his ventures have almost always resulted in financial success, and because financial aid extended to friends has ordinarily been given under circumstances involving no loss to him, some may have thought that he always had an eye to his own interest, and that underlying his actions was a selfish motive of personal gain, but all this is entirely consistent with the character I have given him, because with all there was that same unerring judgment which told him where and when to extend aid or enter upon a doubtful venture. It was perfectly natural that he should come out successful, because his actions were prompted by his judgment, and his judgment being good the result was inevitable; indeed, as all know, the useful man in society is the successful man. Others have attributed his success to luck; but the long course of dealings and the long experience in varied enterprises nearly all terminating successfully, cannot be accounted for on the theory of luck. The early battles fought and won by General Grant were attributed to the same cause, for the reason that those who had known him could not bring themselves to regard him as a great general, and those who had not known him could not conceive of great success attending an obscure man except as arising from accident or luck. But when these successes became the rule of his life, his manœuvres upon the field and his battles succeeding them resulting in victory upon victory people began then to analyze the character of the man, and inquire for a cause beyond that of accident; and gradually he came to be looked upon as a great general, and as having within him the material out of which great generals are carved. So with Mr Cone; none but a superficial observer could refer the successes of his life to accident.

Whether he will before the close of his career dedicate a portion of his well-earned wealth to some public charity or some public use can only be predicted, but not stated with any degree of certainty. His charities, however numerous and varied, are not heralded, and if he has in his mind any unformed plan for leaving behind him some monument, in the shape of some public institution, it has not been disclosed beyond the very narrow circle of his most intimate friends. It is believed, however, that some such idea is in contemplation by him.

He feels greatly attached to the county which has been the scene of his principal successes, and to the people among whom he has lived so many years, and it is believed that if he is spared to work out some practical method of public good he will do so. That he values education, and desires to see our educational institutions prosper, and that there should be a more general diffusion of knowledge than was obtainable in the days when he was a boy, his career affords many evidences. If he should bestow any public benefaction upon the community in which he lives, it will in all probability take shape in the form of some educational institution.

Many persons are wondering whether in his lifetime this great property will be subdivided and opened to settlement. Upon this subject he has expressed himself as ready to enter upon the work of subdivision as rapidly as other improvements seem to demand it. There is at this time a good deal of desirable land in the market in Tehama county, and there seems to be no pressing necessity for the dismemberment of the property in which he takes so much pleasure; but when the time comes the sacrifice will be made; indeed, there is a very fine property for subdivision —some five or six thousand acres—south of Mill creek, and a part of the original Rio de los Molinos rancho, which he is now ready to separate and put upon the market.

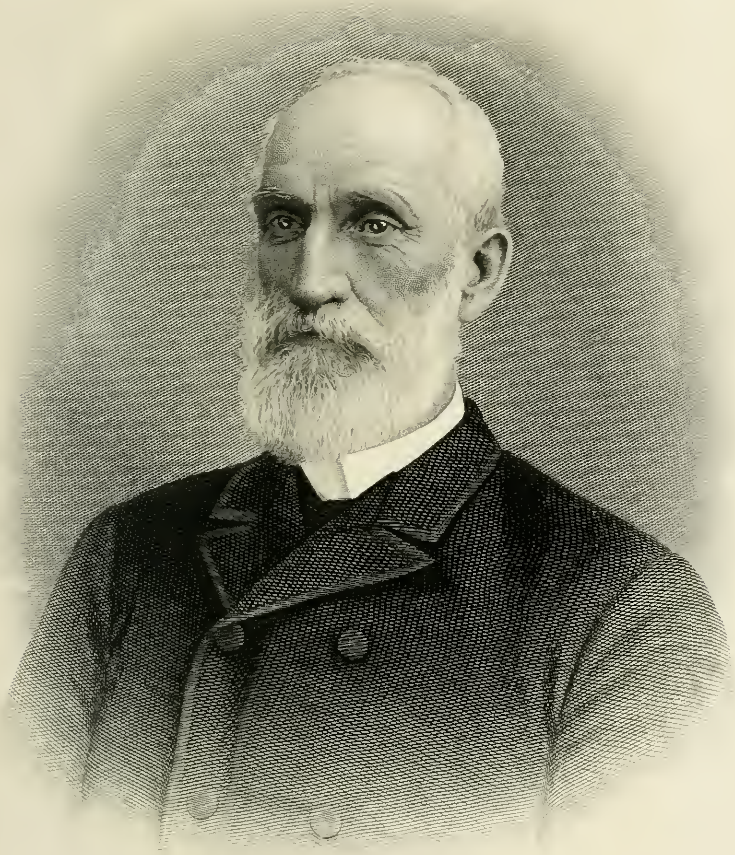
Such a man as we find Mr Cone to be could not fail in having a very great influence upon the people among whom he moves. It is difficult to measure the influence of such a man upon society and upon the rising generation, growing up within view of such an example; in point of fact, notwithstanding the absorbing business which has engaged his attention for so many years, he has been very near the people, and has in many ways made his influence felt for good among them.

CHAPTER VIII.

LIFE OF JOHN BENSLEY.

DEVELOPMENT OF MANUFACTURES—ANCESTRY AND EDUCATION OF JOHN BENSLEY—EXPERIENCES IN MEXICO—COMES TO CALIFORNIA—MERCHANDISING, STEAMBOATING, GAS, WATER, ELECTRIC LIGHTS, ROLLING MILLS, IRRIGATION, OIL AND LEAD WORKS, DREDGING AND COAL INTERESTS—AN ACTIVE AND USEFUL CAREER.

IT has often been remarked by those who are familiar with the resources of California that her manufacturing interests will eventually exceed both mining and agriculture in the volume of their aggregate wealth. This prediction has already in a measure been fulfilled, and almost every year may be observed a steady increase in their amount, the total for 1888 being estimated at $100,000,000. Not only does the manufacturer add a second value to the material furnished him by the farmer and stock-raiser, but the results of his operations are far-reaching in their influence, affecting all classes of the community, widening the channels of trade, and giving employment to an army of workmen. To produce within a year $1,000 worth of wheat or gold or silver the labor of a single man may suffice, but to furnish $1,000 worth of manufactured fabrics a number of operatives must be employed. In supplying their needs others again find occupation, and thus through many ramifications the effect of these enterprises is plainly visible. Such



John Bensley

industries are, indeed, the very life-blood of a nation, and without them there can be no substantial prosperity.

It was not until long after the gold discovery that manufactures on any large scale were considered possible on the Pacific coast, or that any well-organized efforts were made to introduce them. While money commanded from one to two per cent a month on the very best security, there was little inducement to engage in such adventures; nor was it until the outbreak of the civil war that any considerable impulse was received in this direction. Foremost among the pioneer manufacturers of California must be mentioned the late Mr John Bensley, to whom is due the establishment of many of our earliest and most needed enterprises.

On the father's side Mr Bensley was descended from an ancient and long-lived family, belonging to the gentry of Wales, and were large landholders, whence, in 1631, his great-grandfather, David Bensley, removed to America, purchasing a tract of land in Massachusetts, near the site where now stands the town of Salem. Here he passed the remainder of his days, leaving six sons, one of whom named Joseph, bought an estate in Rhode Island. Joseph Bensley was the father of one daughter and seven sons, one of whom, named Jenks, married Miss Pauly Sweezey, a worthy young woman belonging to the old Puritan stock of New England, and afterward settled in Herkimer county, New York, where was born, on the 26th of December 1812, the gentleman whose biography is now presented to the reader.

At the village school of Poland, in Herkimer county, Mr Bensley received his early education, proceeding thence to the Fairfield academy, and later to Columbia college, where he graduated in 1835. Returning to his home, he remained for a time with his parents; but the quiet, uneventful life of a farmer was not suited to a young man of his enterprise and ambition, and a few years later he set forth westward, journeying first to Chicago, at that date a mere frontier village. In 1839 he joined a party of Mexican traders, among whom were two prominent merchants from Chihuahua, who had obtained from the Mexican government the privilege of introducing goods free of duty for a term of five years, on condition of their opening an overland route from the borders of Texas to the capital. A company was organized, and its members proceeded to New Orleans, where they purchased a cargo of merchandise, and shipped it to Clarkesville, near the mouth of the Red river. Here an expedition was equipped, and with thirty wagons they started for Chihuahua, where they arrived in safety after three months' travel, though on several occasions encountering large bodies of hostile Indians, and were received by all classes of people with the heartiest welcome. Here, and in other portions of the republic, Mr Bensley engaged in mercantile business, and at the outbreak of the war between that country and the United States was a resident of the city of Mexico.

At the beginning of the war, as it will be remembered, Santa Anna issued a proclamation ordering all American citizens to leave the country within thirty days. Thereupon Mr Bensley removed to Tampico, where he remained until after the surrender of Vera Cruz, in March 1847. At Tampico he chartered a ship, and loading her with mules shipped them to Vera Cruz, and sold them at remunerative prices to the quartermaster of the forces for fitting out the transportation train of General Scott's army for the city of Mexico. He now resolved to accompany the army, and on reaching the valley of Mexico raised a company of volunteers from among the camp-followers, and was unanimously chosen its captain, his command being assigned to General Smith's division, and taking part in the battle of Contreras in August of this year. The troops were now in want of provisions, and in the armistice which followed that engagement, it was stipulated that General Scott should be allowed to enter the city for supplies; but when his wagon-train entered the capital, escorted by a party of dragoons, the men were plied with missiles from the housetops, and compelled to withdraw. Matters began to look serious, for stores of every description were almost exhausted, and there seemed little prospect of obtaining further supplies. But supplies they must have, and that at once, and without having recourse to measures that would arouse the hostility of the populace. At this juncture General Robert Allen, the quartermaster-in-chief, sent for Captain Bensley, and asked him whether he could not obtain provisions and fodder in the city of Mexico, "I think I can," replied the captain, "or, at least, I will try."

Assuming the garb of a Mexican Mr Bensley, who spoke the Spanish language, entered the city unmolested, with three hundred and fifty pack-mules and packers, loaded his train, and passed out of the city at the garaita on Main street leading to Chapultepec, and before nightfall returned in safety to camp, amid the acclamations of his comrades. After this daring and successful feat, he closed a contract for supplying the army with beef, and this he held until the evacuation of the capital. Meanwhile he took part in the battle of Chapultepec, his command being now transferred to Worth's division, and entered the city of Mexico with General Scott, remaining there until June 1848, when he withdrew with the last detachment of United States troops. He then returned to New York, with a fortune of $160,000, most of which he had accumulated in Mexico, and with what he valued more, the consciousness of having rendered his country a timely and invaluable service.

Soon afterward news was received of the gold discovery, and with General Allen and eight others he organized a company to proceed to California, each member contributing $10,000, or $100,000 in all, with which they purchased the bark *Eliza*, loaded her with groceries, provisions, and such other articles as they thought would be most in demand, and despatched her to Sacramento by way of Cape Horn. In February 1849 Mr Bensley himself took ship for San Francisco on board the *Panamá*, one of the first steamers to enter the Golden Gate. Reaching Sacramento in advance of his vessel, he engaged in the freighting business from that city to the mines, clearing in two months a profit of $5,000. With this he purchased a lot on J street, and on it erected a frame building which his company had shipped in sections on board the *Eliza*. This structure, although intended for business purposes, he placed three feet above the ground, observing in the vicinity indications that the land had been formerly overflowed. This innovation gave rise to much cheap ridicule among his neighbors; but their derision ceased when, a few months later, came the flood of 1849–50, and his building was the only one in the city left standing above the water mark.

Under the firm name of Smith, Bensley & company, and later Starr, Bensley & company, though always under Mr Bensley's management, the business prospered steadily, until, in November 1849 he found it necessary to return to New York for the purpose of securing a larger stock of goods. Here he purchased a half interest in the steamers *Confidence* and *Wilson G. Hunt*, for which he was appointed agent, had their guards cut off at New York, and sending them to San Francisco, by way of Cape Horn, fitted them out for the river trade, and ran them successfully between that city and Sacramento, until 1854, when they were transferred, together with his half share in the steamer *Comanche*, to the California Steam Navigation company. Of this association, formed by consolidating the interests of all the owners of steamboats then running on the bay of San Francisco and its tributary streams, the proprietors transferring their vessels at a valuation agreed upon, he was one of the founders, and also one of the directors, until its sale to the railroad company in 1871.

The year 1852 was a disastrous one to Mr Bensley, for during the great conflagration which then occurred in Sacramento, his residence was destroyed, and at the same time the establishment of the firm of Curry and company, whom he had started in business with his own capital. Soon afterward he removed to San Francisco, and to the energy and disinterested self-devotion which he displayed in advancing the interests of his adopted city that metropolis is largely indebted for much of its earlier and more permanent prosperity. Had his purpose been, as was too often the case with the argonaut, merely to accumulate a fortune and return forthwith to his native state, there were many surer and more profitable investments than those in which he employed his time and capital. But such was not his object, for in every enterprise in which he embarked he was animated more by a desire to promote the welfare of the state than by the hope of personal aggrandizement. In this spirit all his more important undertakings were conceived and executed, conferring on the people a lasting and substantial benefit.

Together with A. W. von Schmidt and Anthony Chabot, he incorporated, in June 1857, the San Francisco water-works, and introduced from Lobos creek the first regular supply of water, serving as president of the association until its consolidation with the Spring Valley company. Before this date water was brought to the city in carts, and sold at exorbitant prices—often more than tenfold the present rates. Some nine years later Mr Bensley organized the Clear Lake water-works, purchasing under the swamp land act most of the land bordering on the lake to which, in his opinion, the city must ultimately look for its permanent supply. Later he disposed of his interest to the Spring Valley company.

Mr Bensley was one of the original trustees of the Citizens' Gas company, incorporated in December 1862, and the second one established in the metropolis. In this he was largely interested, and as a member of the board of directors continued to take an active part in its management, until its consolidation with the San Francisco Gas company.

He was also one of the organizers of the California Electric Light company, now a prosperous enterprise, and as projector and organizer of the Pacific Rolling Mills, incorporated in May 1866, he selected the location of the works, which was afterward approved by B. P. Brunner, the constructing engineer. At this date there was not a single rolling mill on the coast; freights from the east were extremely high, and iron, whether raw or manufactured, was imported at extravagant prices. There seemed to Mr Bensley no good reason why this demand could not be supplied at home, and with the aid of his capital and supported by his energy and skill, a factory was established for this purpose many years sooner than it would otherwise have been called into existence. Until 1876, when he disposed of his interest to James G. Fair and Nicholas Luning, he was a director and the largest stockholder in the association. Before the transfer was made it had been clearly demonstrated that it was a profitable as well as a useful undertaking, and had been paying regular dividends. To his energy and perseverance are largely due the prosperous condition of our iron works and machine-shops, a branch of industry essential to the prosperity of a great mining country.

But perhaps the greatest boon which he has conferred on this state is the introduction of irrigation works on scientific principles and on an extensive scale, inaugurating a system which was destined to transform from a wilderness into a garden spot the great interior valleys of southern California. In March 1866 he incorporated the San Joaquin and

King's River Canal and irrigation company, and the courage and persistence with which, in the face of all obstacles and difficulties, he carried this great enterprise to a successful consummation are worthy of all commendation. At this period there were none who believed that, with the prices of labor and material then prevailing, such an undertaking could possibly pay expenses. In vain he appealed for assistance to the capitalists of San Francisco and New York. In every instance he met with a refusal, and not infrequently with a sneer, for men regarded the scheme as chimerical, and its author as a mere enthusiast. An enthusiast, indeed, he was, but by no means in the sense in which he was regarded, and as for obstacles, by men of Mr Bensley's stamp they are encountered only to be overcome. If others would not aid him in the work, then he would accomplish it by himself, and in the summer of 1868 he broke ground on the canal, though during this and the two succeeding years his progress was retarded, owing to the difficulties of transportation. In 1871 he resumed active operations, and notwithstanding the enormous expense of transporting supplies, materials, and implements for a distance of seventy-five miles across a mountainous country, from Gilroy to the neighborhood of Firebaugh's ferry, on the San Joaquin river, he constructed the first forty miles at his own expense, employing more than a thousand workmen. At the top the canal is seventy feet in width, and at the bottom thirty-two feet, with a depth of six feet of water. On the line of the canal he leased large tracts of land, which he planted in wheat and barley, with the most favorable results, thus demonstrating that portions of the San Joaquin valley before deemed worthless as a grain region would yield abundant crops with the aid of irrigation.

He was the projector and builder and supplied all the funds for the Pacific Oil and Lead works, incorporated in 1866, and constructed during the following year. At this date the manufacture of linseed and castor oils was an unknown industry on the Pacific coast, and at first he was compelled to import his material from Calcutta and from Chilian ports. By encouraging the cultivation of flax, however, among the farmers of California and Oregon, and in many cases advancing the means for this purpose, he not only obtained a supply of seed, but added an important and lucrative industry to those already in existence. His interest in this enterprise was afterward disposed of to D. O. Mills and the Kittle brothers. Among other projects in which he has taken an active part are the Pacific Dredging company, incorporated in October 1868, and the Tuolumne County water-works, in both of which he was a director, while in the Black Diamond Coal and Mining company he was at one time among the largest stockholders.

Thus by his enterprise and liberality he made the fortunes of many others, or at least opened to them the path that leads to fortune. He was ever ready to aid his friends when overtaken by financial troubles, devoting to their interests and the interests of the state a greater share of his means than he used for his own advancement, often embarking in enterprises somewhat in advance of the times, when the demand for their products had to be created, and sinking large amounts of capital in laying the foundations of numerous industries of which others have reaped the benefits.

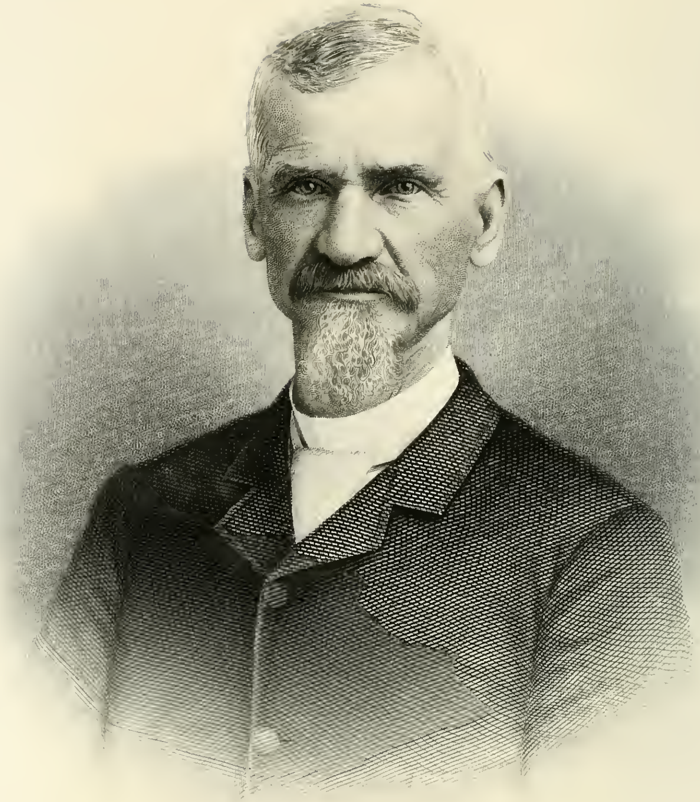
With a number of institutions tending to the social and intellectual advancement of the community he was also prominently connected. Among them is the Young Men's Christian association, of which he was one of the founders, and a life member. Of the Mercantile library he was also one of the promoters, and a life member; was a life member of the Society of California Pioneers, one of the promoters of the home for the care of the inebriates, and contributed toward the support of the Mechanics' institute. In many charitable and social organizations he took an active interest, contributing freely to all that he deemed worthy of assistance. In religion he was of the presbyterian faith, and in politics a republican, though never in the modern sense of the word a politician, neither accepting nor caring to accept the nomination for any political office.

When, after a long career of usefulness, he passed away from earth on the 19th of June 1889, there are none whose memory was more respected, or whose loss was more sincerely regretted.

In his deeds of charity as in the conduct of all his affairs during the later years of his career, Mr Bensley was aided by the advice and assistance of the refined and cultivated woman who presides over his household. On September 16, 1869, he was married to Mrs Marion Louis Jeannette Macdonald Éveleine Greville, widow of the Honorable George Greville of England, née Éveleine, a direct descendant of the McAlpine family of Clan Alpine, one of the most ancient families in Scotland. Gregorius was one of her ancestors. Her relatives strongly opposed her union with an American, and, in fact, created an estrangement which has never been reconciled. Among her wide circle of friends and acquaintances she is universally esteemed for her many estimable qualities, while as to her accomplishments it need only be stated that she converses in five modern languages as fluently as in her native tongue, and is also a good Latin and Greek scholar.

In appearance Mr Bensley was one of those men whose commanding presence at once attracts attention. An inch over six feet in height, his frame was massive and well-proportioned, with corresponding breadth of shoulder and depth of chest. In his features, which were prominent, but regular in contour, with a large and capacious forehead, and deep-set eyes of a cold light-blue color, were expressed the iron of his nature and the strong intelligence and perceptive powers with which he was largely gifted. That he was a man of boundless enterprise, particularly in the direction of the public benefit, will be inferred from the incidents of the career which have now been laid before the reader.

Of the good work that he accomplished in developing the resources of the state it is impossible to speak in terms that are worthy of the man and his many eminent services. To him is due the fact that San Francisco was first provided with an ample supply of pure and wholesome water. To him is due the inception of our iron manufactures, our oil and lead works, and the introduction of several new and important industries. Through his efforts the inland commerce of the Pacific coast was placed on a permanent basis, and by his enterprise he established a system of irrigation whereby vast tracts of desert land have been reclaimed. The benefits which he conferred on California it is, indeed, impossible to overestimate, and in the annals of the Pacific coast the name of John Bensley will appear as one of the highest exemplars to all posterity, as the foremost champion of progress, and as one whose numberless benefactions and disinterested self-devotion to the welfare of the state have exerted an influence that cannot well be realized on the material prosperity of the commonwealth.



M. J. Church

CHAPTER IX.

LIFE OF MOSES JAMES CHURCH.

GENEALOGY—FAMILY CHARACTERISTICS—EARLY TRAITS—EQUIPMENT FOR LIFE IN CALIFORNIA—STRUGGLE AGAINST A DUAL FORCE—BRUTISHNESS IN THE FIELD AND CROOKEDNESS IN LITIGATION—A TRIUMPH FOR CIVILIZATION BROAD AND DEEP—PEACEFUL CONQUESTS—MORAL AND INTELLECTUAL FORCE—THE FATHER OF IRRIGATION—IMPORTANT AGENCY IN THE COUNTRY'S GROWTH—A LIFE OF BENEFACTIONS—PORTRAITURE OF A PROMINENT CHARACTER.

THE pioneers of California are the originators and builders of her prosperity and greatness. Study faithfully their character and life-work, and you have all that is essential in California history. They are not only entitled to the credit for developments already made; the future destiny of the state is largely due to the foundation work of these creative and controlling spirits.

In the industrial, commercial, and financial developments irrigation has been a most potent agency; yet what has already been achieved thereby, though great and useful, cannot be fully appreciated unless considered as the basis and inspiration for infinite development at the hands of posterity. The man to whose brain we owe the first important system in irrigation on this coast, the conspicuous pioneer in this department, is Moses James Church. Through his efforts a thorough and extensive system has been carried to a successful issue. In the extraordinary advancement of the state up to this date, he is one of the most substantial factors—a man whom the student of history, by analysis of the facts, will recognize to be an individual force and special agency for all time, in the great sum of human energy evolved on this coast. The man who subdues and conquers, who clears the way, thereby demonstrating the capabilities of a country to others, and giving confidence and spirit to them, who thus pluralizes his own life during his own existence, and multiplies it infinitely in the years to come as his ideas fructify in the mind and labors of others—he is the man on whose tablets the debt of posterity should be inscribed. Though his daily walk and conversation be ever so simple and unpretentious, his attributes and his deeds should be understood and appreciated by the world at large for the good there is in them, and surely his virtues and achievements should remain fresh in the minds of those who share directly in the triumph of his genius. Mr Church came to this coast in 1852, after the first flush of the gold excitement had partially subsided, and about the time when practical tests were being made in determining the value of the soil for agriculture, and the civilizing avocations dependent thereupon. Society was demoralized, and wholesome domestic restraints were swept aside, in the wild rush for wealth. To organize communities, establish actual homes on a permanent basis, to build up an empire here in the best sense of the word, every inducement was offered in the soil, climate and extent of territory—all nature seemed to invite to the unfolding of a new civilization in these remote regions. Yet the conditions were new. The resources of the state for stable, permanent wealth—the soil pregnant with God's best gifts to man, escaped the notice of the mass of fortune-hunters. The soul of the earth, as that of Pedro Garcia, remained incomprehensible, until one of original mind should come and interpret it. The possibilities of this new life were conceived by Mr Church, and his intellect and the sweat of his brow have been dedicated thereto. He possessed that uncompromising determination which dwarfs obstacles, a faith in himself which is capable of removing mountains, and a perception which grasped at once the present and the future of great industrial and commercial undertakings. Nor was he less remarkable for hard common sense, that balance-wheel of all the faculties. Nature had endowed him with a rugged constitution, a capacity for labor, a power of endurance, and a vitality rarely equalled and never surpassed. These qualifications of mind and body, coupled with straightforward, generous manhood, a spirit too proud to stoop to indirection or subterfuge for the sake of advantage, enabled him to accomplish a beneficent work for humanity in spite of his adversaries, who were powerful, persistent, and unscrupulous, fearing neither God nor man, and, also, to do this in such a manner as ultimately to command the admiration and respect of all appreciative and honest men.

Like others who crossed the plains early, he came to secure a small fortune in the gold-field, intending to return when that mission was fulfilled and enjoy himself in "the states." He did not know the country until he had studied it in various ways for perhaps fifteen or sixteen years; but then he began to realize its greatness and to comprehend his destiny in it. Thereafter, this and this alone was destined to be his home and his country.

Moses James Church was born in Chautauqua county, New York, on the 28th day of March 1818. His father, Joshua Church, was a native of Vermont, and the son of Scotch parents. His grandfather was one of the colonial settlers, and a soldier in the revolutionary war. His mother, whose maiden name was Sophronia Shurtliff, was the daughter of Scotch-English parents, their Christian names indicating Puritan stock. She was a woman of remarkable character, and was one of the leaders in the religious reformation led by Alexander Campbell, Walter Scott, and Barton Stone. His father was twice married, and the father of fifteen children. Moses J. was the second child of the first family, of whom there were six. Joshua Church was a prominent and influential man in the neighborhood. His counsel was sought on all occcasions involving the important industrial and social interests of the community. He was a farmer and wheelright in comfortable circumstances. In the moral, physical, and intellectual training of their children, the parents exercised great care, inculcating in them, by example and precept, principles of honesty, temperance, industry, and economy. Sophronia Church was a woman of exalted sentiment. When less than thirty years of age she was stricken with a fatal disease. Two weeks before her death she called her husband and six children to her bedside, and talked with them as calmly as though she were only going away on a journey, and having no anxiety except that they should so live as to make the reunion of the family certain in the world beyond. The scene was more than the afflicted husband could endure, and he yielded to despair. She tried to console him, but finding that the load was too heavy for him to bear, she requested all but her sister to withdraw; in January 1890 this sister was living in Fresno, California, eighty-five years of age, with her faculties well preserved. Calling for pen and paper Mrs Church wrote, in verse, a touching and earnest farewell to her husband and children, counselling with them deliberately for the last time, how to fashion their lives for the present and the future. These verses, written under such circumstances, are, to my mind, an evidence of sublime faith, that is fit to be recorded among the experiences of the martyrs. They are a manifestation of the spirit of a mother whose character I believe to be largely reproduced in that of her son. She was a woman of more education than was ordinary in her time and neighborhood, and though the verses referred to, which I find in the

Christian Palladium of June 7, 1826, are not in classic form, they give voice to a soul possessing those qualities of love, imagination and faith, without which there is no poetic inspiration. To that paper she contributed many articles on scriptural subjects. She was a diligent and ardent student of the bible, her comprehension of which was remarkable. She knew the good book from cover to cover and her familiarity was not of the superficial sort. Her knowledge was profound, and by her writings she brought light into dark places and made difficult passages easy. She exercised much influence in the Christian church by her writings; but she exerted a still greater influence, perhaps, over those with whom she came into contact personally, in the church and out of it. She was widely known, and there was no woman in the community whose words were received with more weight nor whose example was more helpful and elevating. She was devoted to the cause of christianity and good morals, but she was reasonable and practical in her efforts on behalf of others. Cut down in her young womanhood, she had nevertheless already impressed herself upon all those that had any associations with her. She had shown herself a typical wife and mother, filling her place as such with conscience and wisdom, and with almost her last breath making a timely effort to continue her spirit with them in counsel after her body had been consigned to the earth. In her church she manifested her faith by acts; to the world she was kind, charitable, helpful—a genuine Christian. "Character," says Emerson, "is moral order seen through an individual nature." In her this noble embodiment was exemplified; and in her son Moses the salient features of her character are repeated. A good woman is nature's masterpiece. "Good mothers, far more than fathers, tend to the perpetual renovation of mankind." Virtuous parents, who, by the example of their lives, establish in their children the qualities which they transmit to them by heredity, replenish the moral force among men without which the race can only retrograde.

Moses received a limited education in the public schools of his time. He manifested special talent for mathematics, and his father suggested an extended course of study in this branch, but he preferred to learn a trade and to do for himself, trusting to experience and friction among men to practically finish the education in books begun in the log schoolhouse. It must be said that, until he grew to be a young man of seventeen or eighteen years, he was not interested in his books. He generally had some scheme of his own, skating, fishing, or hunting. It was only after he had begun to do the work of a man that he began to study with an object; since then his thoughts have been concentrated always upon some well-defined purpose, in order that he might improve himself practically and intellectually. When he was nine years of age his father moved to Erie county, Pennsylvania, and when seventeen he commenced to learn the blacksmith's trade, to which he added the study of the diseases of horses, in order to combine the business of farriery with that of blacksmithing.

To this study he brought that thoroughness which has characterized him in whatever engaged his attention; having no patience with superficial or makeshift knowledge, he never rested until he had mastered the subject in theory and practice, and could command the business in that line wherever he went. For no man can shoe a horse properly, however good he may be as a mechanic, if he does not understand the anatomy of the noble animal.

To ignorance of the functions and disease of the horse's feet is due much of the lameness and suffering of man's most useful friend. Taken out of his native state he should be carefully equipped for his artificial condition, when put to work anywhere, especially in cities, his health and value depend upon adapting him to the new regime. He must be treated according to the laws of his nature. When unshod the horse's frog makes an imprint on the ground; it should be so when he is shod, for the frog is intended to serve as a cushion to prevent jar, and render the movements of the horse springy and graceful. Yet most city horses, at least, would not leave an imprint of the frog on a dusty road with their shoes off, to such constant parings are the unhappy frog subjected. Result: corns, thrush and contraction. How many blacksmiths to whom valuable horses are brought to be shod know what the natural slant of the hoof is from coronet to toe—who realize that however little that slant varies from forty-five degrees, just to that extent is the horse injured in gait and strength. The normal thickness of the sole, the true uses of the frog, the object of the frog-bars are elementary things, a knowledge of which determines the difference between the charlatan and the farrier in horseshoeing; but, in their way, they comprise a vast deal to be learned, as do the four fundamental processes of arithmetic. This was the first study that he undertook. He pursued his researches in books and by observation as he worked at the shop, until he understood the horse as the physician is supposed to understand the human organism. Such knowledge was not to be got in a day; to acquire proficiency in the art cost him years of loyal, earnest work.

In the year 1842 he married Miss Sarah Whittington, and three years afterwards removed to Columbus, Georgia, where he enjoyed the distinction of putting up the iron works in the first paper-mill erected in that state. He lived at Columbus for five years in the employ of Mott and Mustion, who owned several important stage lines. In that section of the country at that time all travel was done by staging, and a great many horses were used, among which there was always sickness enough to keep our farrier more or less busy, when not occupied otherwise in seeing that they were humanely shod. As out of so large a number of horses many died every year from various causes, he had frequent opportunities, none of which he neglected, to enlarge his information by dissection, thus practically getting at the root of the disease in each instance. His reputation as pathologist and surgeon grew as his skill increased, and among the wealthy planters of Georgia who owned fine horses his services were much in demand, and he treated successfully several blood racers whose record is still a part of the history of the turf. His experience during these five years in the south was valuable to him and to those whom he served in the manner described; this experience was of great value to him directly, as it strengthened him in that art of healing which is second in usefulness to that alone which deals with human beings as patients. But, more important still, perhaps, in his Georgia school, from his study of the horse, he was led naturally to take up the study of the physiology and hygiene of men, women, and children. Here was his second problem to be wrought out and demonstrated by force of reason, research, and personal test, for to undertake an investigation and abandon it was foreign to his nature. Later we shall see what has grown out of his thinking and labor in this positive direction.

In 1851 he removed to Lake county, Indiana, where he worked at his trade as blacksmith and practised farriery.

In the spring of 1852, with his wife and three children, his brother and a hired man, he joined a company of emigrants bound for California. He had a good team of oxen, a few cows, and one horse. They came by the old emigrant route, by way of Fort Kearney, Chimney Rock, and Sweetwater. On arriving at Goose lake the feed was so good that he concluded to stop a few days to recruit his stock, and the rest of the company continued their journey. He learned very soon that the reason the pasture was so good was on account of the hostility of the Indians, which caused emigrants to avoid that vicinity. The Indians attacked them, and but for the assistance of a company of emigrants who were overtaken by his hired man and brought back, the whole party would probably have been murdered. After nearly six months of hardships they landed in Hangtown, now Placerville, El Dorado county, November 1852. Here, while working diligently at his trade, he incurred the displeasure of other blacksmiths by the invention of a sluice fork which he could manufacture for one-third the cost of the one in common use, and which proved to be a better implement. His fellow-craftsmen held a meeting and resolved that he should either sign an agreement to charge sixteen dollars for his fork or leave the country. He refused to sign it, and a man named Fowler, a large, burly blacksmith, threatened his life then and there. Church, whose blood boiled over this assault upon his rights as a man and his liberty as an American citizen, and who realized that he must defend himself on the spot, or else be crushed and driven out of the community, picked up a piece of wood with an iron hook on the end of it, and felled his adversary to the ground, cutting him in the face. The next day he received a challenge to fight a duel, accompanied with a threat that unless he accepted he would be murdered. He refused to accept, and laid the case before a lawyer. Fowler was arrested and bound over to keep the peace. And thus ended the first battle he had to fight in California in order to protect his life and vindicate his manhood. I apprehend that he did not decline the invitation to mortal combat for lack of courage; for while his whole career on this coast shows him to be a man of peace and a Christian in the true sense of that word, no danger has proved great enough to deter him from a legitimate or righteous pursuit. His attitude has always been that of defence.

Soon after this episode he was called on to assist in the construction of a ditch, in company with Bradley, Berden and company, to take water from the Cosumnes river for the use of the miners, which was also used profitably by persons engaged in the fruit and garden culture. This was the first ditch of any importance constructed in this state. The work suggested to him his first ideas of the benefits which would flow from a system of irrigation in the great arid valleys, and the financial success to the person who should construct such a work, where the long dry seasons make the successful cultivation of the soil on the plains impossible without water. Mr Church studied with thoroughness every subject that claimed his attention, and when once convinced, he moved forward undaunted by anything opposed to success. While he considered man's time too brief and too precious for any but serious thought and action, his motto was to throw his whole life into whatever he undertook, being satisfied that it was a legitimate and worthy thing to do. His career is a marvel of concentrated force.

After five years spent in El Dorado county he removed with his family to Napa county, and for a time engaged in the stock business near Coyote valley, which was entirely new and wild then. The valley was alive with bears and deer. The former were a terror to the people who undertook to raise stock there, Mr Church being among the first. He and several others, who have since passed away, went to work and hunted for bears continually, until the last one was destroyed. On one occasion Mr Church's cousin was mangled and killed by a wounded bear, and he himself had hair's-breadth escapes enough; but after a while he made such a thorough study of bruin as to kill him with expedition and without fear. He killed the first bear and the last one in the valley.

While in Napa county he supervised the construction of several mountain roads leading into Lake county. After a few years he moved to Napa city, where he worked at his trade as horseshoer and farrier until 1868. Here the thoroughness of his knowledge of farriery and his skill and attention to business was such that it was not a great while before he got most of the work that was to be done. As a natural consequence he excited the jealousy and incurred the enmity of his competitors, it being his destiny, it would seem, to arouse antagonism wherever he labored—antagonism, however, in which only those indulge who are beaten in the race and can rightly complain of themselves alone. In the year named, he purchased a band of about 2,000 sheep, sold his business interests in Napa county, and moved to the plains east of what is now called Fresno city, near Centerville. He settled first on government land near some springs about three miles east of Centerville, where he built a cabin and corral for his sheep. His son George, who was with him, attended the sheep in his absence on business. He had no sooner got his buildings up, his provisions laid in, and his seed wheat purchased, than he was visited by the cattle-raisers and their hired men, and ordered to leave the country on pain of death. Yank Hazelton, one of the cattle potentates, claimed the whole country in the section on which Mr Church was working, as his domain by right of possession. But Mr Church was not one of the kind to be frightened from a righteous and legitimate undertaking. He confronted his adversaries with resolute calmness. Said he: "If I am a trespasser on these lands, I am not aware of it; I shall investigate the matter." The next day, while Mr Church was on his way home from Centerville, the following incident occurred. He was met by seven men.

One of these who had made the first demonstration said to him as they came up, "Well, I see you are still here. We have come to see whether you are going or not." Mr Church then said, "I want to see Yank

Hazelton first; I have been very busy, and haven't had time to look further into the title of this land." Upon this a man getting off his horse said, "I will introduce myself. I am Yank Hazelton." "What do you want of me," asked Mr Church. "I want none of your gab," was the reply. "I have had peaceable possession of this land for seventeen years, and you and I can't both live on these plains. And if you persist in settling here, I'll give you just your size, and no more. I want you to get in behind your sheep, and not stop until you are out of the county. I ordered your son, if he valued his life, to leave with the sheep. He is obeying like a little man, and you will have to do the same." And then Paul Stover, a Dutchman speaking broken English, said, "I be's a carpenter, and I makes you a house for you"—meaning a coffin.

On looking up Mr Church saw that his son was moving off the sheep, and he said to Hazelton: "Your request is unreasonable, even if the land is yours. I may be a trespasser; if I am, it is through ignorance. Your demonstrations are of such a character that I am satisfied I must be a trespasser; but I cannot go to-night and leave my house and provisions, and my horses and wagon. I must have further time. If you wont give me time, you may as well carry out your designs, whatever they are." Hazelton then said: "Well, boys, that is pretty plain talk. What shall we do with him? Stover replied: "If he no goes, the cattle be's all dead; and I makes the little house for him." After consultation Hazelton then said: "You can have until nine o'clock to-morrow morning, and if you are not gone by that time, we will come and carry out what we expected to do to-day." They left him, whereupon he went to his son and stopped him with the sheep. They repaired to where their cabin stood, intending to corral the sheep for the night. They found everything in ruins; cabin and corral had been torn down, and all their provisions and seed wheat destroyed by a herd of hogs which their enemies had driven on the premises for this brutal purpose—desolation as cruel and complete as human fiends could make it. Three attempts were made on his life by Hazelton's men, but there was a providence which had a destiny for him too grand to be thwarted by their murderous hands.

He was looked upon as an intruder and trespasser, neither his legal nor moral rights being much considered, if at all, by the autocrats into whose domain, hitherto undisputed, he had come lawfully and peaceably to accomplish the greatest good for all, even for those who so persistently persecuted him and kept his life in jeopardy, for he has actually enriched those of them who were not too arrogant to acquire title to the lands they used. What he has done has made their property too valuable to be held much longer as stock ranges. Still he escaped from all the snares they prepared, or allowed to be prepared, to punish and get rid of him. Many instances have been reported to me upon excellent authority, among which I note the following, which shows he was constantly in peril. One Jacobs owned a general merchandise and supply store at Centerville, which was the rendezvous for the neighboring country, on account of its being the only postoffice for the whole valley. One day Mr Church went there to get his mail, and when he was going out a handful of sand was thrown into his face. The redoubtable Stover, who was sitting on the counter, drew up his foot and struck him on the side of the head. A man named Glynn, who stood on a pile of sacks, aimed a kick at him, but his blow was parried. Mr Church threw up his arm, caught the man's foot and sent him sprawling at full length on the floor. George Church, who happened to be present, grabbed up a pick handle, but his father told him to put it down. The sand filled his eyes, but he could see well enough, and paying no attention to the brute who had kicked him he made for the fellow who had thrown the sand. Though small in stature he was, at that time, possessed of great strength, being all bone and muscle, and could strike a blow of which no smithy would be ashamed. The sand-thrower, who was used up pretty thoroughly in less time than is required to describe the encounter, could testify to this. Suffice it to say that he was left without reason to be proud of his cowardly assault. When Mr Church had passed out of doors he spoke to the crowd, some twenty-five or thirty men, among whom he had run the gauntlet: "If you won't let me alone, why don't you come on one at a time?" As he stood in the street, the miscreant who had thrown the sand, and another of the gang, each with a revolver in his hand, started for the door. It seemed for a moment that the days of the great irrigator were nearly at an end, but the valiant couple either thought there was not sufficient pretext for an immediate homicide, or else wanted a stimulant. They passed, one on either side of Mr Church, and went to a barroom near by. He, apprehending that what they had failed to do whisky would do for them, thought it best to get out of the way.

Getting into his buggy he and his son George drove home. His clothes were bloody, and when he told what had occurred, Mr De Wolf, a friend of his, ran into his room and brought out a revolver. Said he in Spanish: "Carry that wherever you go hereafter, and don't you disgrace it." Mr Church objected to carrying a deadly weapon, but he made no reply and took the pistol, but never carried it. All bloody as he was, he drove up to the head of his water ditch, where he had some fifty men at work, mostly Chinamen, whom he had always treated well, and who were greatly attached to him. He told them of the trouble, and they became very much excited and indignant The two men with the revolvers, after firing up with liquor, had got horses and with five or six others followed him to the works in close pursuit.

When the Chinamen saw them they all ran for a weapon . Mr Church's white men advised him to step down into the bulkhead where they were excavating, saying "If they come we will fix them, let the Chinamen go on working just as though nothing had happened." The two leading ruffians galloped up, and insisted upon seeing Church, and wanted to know where he was. They began to look around for him when Mr Powell, the foreman, made them a little speech as follows: "Now, boys, let me tell you that it would only take a minute to lay you all out right here. Do you see these Chinamen; every one of them is ready and would be glad to do you up if you should make a move. Mr Church is down there behind the embankment; he went there to save your lives." As he was speaking some of the Chinamen who could not be restrained, came up and stood near by on the alert and ready to lend a willing hand. The bullies, seeing the situation, took discretion to be the better part of valor and rode away. Mr Church as a god-fearing man and lover of his fellow-beings had always a horror of shedding blood. No one was ever killed as the result of any act of his in all his vexatious and frequently exasperating pioneer trials and persecutions. Men were killed outright or taken off and lynched to appease the wrath of cattle-lords up and down King river. At one place above Centerville within the space of one mile, there were four men killed at different times by the same or parts of the same crowd, and all of this owing to the blind and selfish rage of men who could see nothing but harm to themselves and no benefit to the country to accrue from settlement and irrigation—that means upon which alone, as everybody now concedes, the permanent and widest possible future for California and other states having extensive arid regions depends. I record these facts in order to bring out the conditions which prevailed at the beginning of agricultural life in Fresno county. I am not disposed to underestimate the public good there is in stock-raising, or to condemn early cattle-men as a whole, nor yet to hold the principals in this industry in the early days of Fresno altogether responsible for the violence and lawlessness of their herdsmen. Such conduct is totally inexcusable, however, whoever may be personally criminated by the facts. There were excellent men among them. I deal now only with those who, by previous long possession of the ground, had grown to be insolent, and were unwilling to consider law or any other impediment in the way of their assumed sovereignty.

Mr Church, and those of his neighbors who were bent on agriculture, settled on land on King river, about four miles below Centerville. He had studied the topography and the soil, and had made up his mind that to open a ditch and divert water from the river to the plains would transform them into fertile fields. When the mines on the Cosumnes river failed and he saw the beautiful results that flowed from diverting the water to irrigate gardens and orchards, he said to himself: "When all the mines are exhausted, the land with water on it will be another and a more certain source of wealth." His mind dwelt on this idea ever afterward. A severe loss of stock during a dry year in Napa stimulated him to put his views to a practical test in Fresno. The only way to induce settlers to come was to demonstrate what could be done. With philosophical discretion he comprehended at once both the end and the essential means thereto. With this idea in mind he first located four sections of land for A. Y. Easterby of Napa city, on the sink of Fancha creek, three miles east of the present site of Fresno city. On this tract in 1868 he put in the first wheat ever raised on the Fresno plains, and harvested a crop without irrigating, though the land was susceptible of great improvement and crops could be made a certainty for every year by means of irrigation. This crop of seven or eight acres proved the capability of the soil for raising grain, and the next year Mr Easterby, being thus encouraged, got Mr Church to put in a large crop for him on the same ground. Having secured a franchise from the secretary of state to appropriate water from King river, a stream affording 20,000 cubic feet and upward, he surveyed and laid out a course of the main canal from the river to the dry bed of Fancha creek. This channel would carry at least a thousand feet per second, a distance of sixteen miles, to the four sections already located. Then, in order to locate settlers in legal form, he secured the appointment of deputy land agent. By writing to old friends he brought in over two hundred permanent home-makers in less than one year. This substantial increase in the number of farmers strengthened them against the cattle-men, who, however, still annoyed Mr Church, being determined to drive him out of the country; but he was there to stay. He sold his sheep and turned his whole attention to digging the canal, in which he used a patent ditcher of his own invention. He let contracts to settlers, and they became a bodyguard to him while pushing the work. In the fall of 1869 the settlers along the line of the canal of Fancha creek put in extensive fields of wheat. The plowing and sowing irritated the cattle-men. They destroyed the crops by turning their stock on the growing grain. To this outrage they added the crime of lynching defenceless citizens, more than one being thus slaughtered by the hirelings of the cattle-barons between Kingston and Centerville. In reality there was no law then, and it was only such men as Church, the true type of empire-builders, who, possessing for the emergency both the courage of the lion and the cunning of the serpent, could survive the atrocities in vogue.

Mr Church constructed the dam about three miles above Centerville, and from this dam two feeders were taken out of the river and brought together about a mile and a half out on the plains, where the main canal, one hundred feet wide and six feet deep, conveyed the water from there to the bend of the Fancha creek. During the progress of digging these canals Mr Easterby settled on his land, and with the numerous other settlers gave Mr Church a moral support which caused the cattle-men to resort to more desperate methods to stop the work and break up farming. He had shown such courage and determination to carry his work forward, and had acquired such moral as well as physical support, that they feared to meet him on an equal footing face to face. A man named William Caldwell trumped up a claim of right of way for the water ditch as a pretext to irritate him, and incite him to commit some illegal compromising act. But he was on his guard, and by retaining always his presence of mind, he avoided the snares which they set for him, never for a moment ceasing his work. Observing his unruffled temper, several of the men in the stock interest conspired to take his life and Easterby's, believing that this would put an end to irrigation. To Jacob's store in Centerville, already mentioned, he had to go for his mail and supplies. The assassination was to take place there, but under the ban of secrecy the details of the plot were revealed to him by two different persons, and he and Easterby escaped. Meanwhile the ditch work was prosecuted vigorously, and by the time the water was needed for their crops they had plenty, and they gathered a bountiful harvest. The success attending the completion of the ditch thus far, in 1870, which demonstrated the extraordinary fertility of the apparently barren and worthless soil, was heralded abroad by joyous farmers, and many new settlers were induced to come in and go to work farming on lands selected for them by Mr Church. But the hostility of the cattle-men did not cease; they continued to destroy the growing crops with as little compunction as when in open war the enemy's country is given over to fire and sword. At last, however, owing to the vitality put into the issue by Mr Church and the farmers he had built up about him, the relative rights of stock-raisers and farmers became one of state interest. The latter demanded a no-fence law, which would compel the former to fence in their stock or herd them off the grain-fields. Mr Church was active in support of the no-fence law, and was opposed by Tom Fowler, a state senator at the time, and a large cattle owner. Mr Church was a member of the republican state central committee, and throwing party aside in this local conflict, he organized the no-fence law advocates of both parties, and secured the nomination and election of W. J. Ferguson of Fresno to the assembly, and Tipton Lindsey of Visalia to the senate, thus defeating Fowler. Ferguson was a democrat, and Lindsey a republican. This chagrined the cattle-men, and they sent Fowler to Sacramento as a lobbyist to fight the law. He proved to be a strong one, surrendering the field only as he was forced from his position inch by inch. Such was his stubbornness and determination that he acquired for himself the nickname of the "wild bull in the senate." Mr Church was instrumental in organizing the fight and looking after affairs at home, while Mr Easterby looked after the interests of the bill at the legislature, the former being the chief spirit and power in the struggle with antagonists who used all the means in their power, which was great, to influence legislation. They secured the services of David S. Terry to combat Fowler, and W. W. Pendegast, senator from Napa county, they enlisted as their advocate on the floor of the senate. It was an exciting session, with the no-fence law as the chief issue. The conflict was between giants. Lindsey and Ferguson were true to their constituents, and the result was a victory for the producers by the enactment of the desired law in 1874. This was a triumph for Mr Church, yet not the only one he achieved in the time of his great work, by strength of will, tenacity of purpose, and ceaseless toil.

About this time the officers of the Central Pacific railroad determined to make a survey of the route from Lathrop to Los Angeles, and Leland Stanford, Charles Crocker, and A. N. Towne made a tour of inspection as far south as Visalia. There they met Tom Fowler, who accompanied them to Centerville, where they expected to meet Mr Church, whose name had become known to men of character and enterprise throughout the state. A meeting between the railroad magnates and Mr Church was just what Fowler did not want to occur, so he put them on the road to Millerton, telling them they would find Mr Church there, when in fact a messenger had notified Mr Church that the party would meet him at Centerville. He immediately despatched a man to Millerton, who piloted the party to the home of Mr Church, where they consulted about railroad matters. He advised them to locate three sections of land where Fresno city now stands, and directed them to the land association at San Francisco from which to obtain a title. Governor Stanford, when he saw the developments Mr Church was making, remarked that the railroad and the canals would make Fresno city, then only in contemplation, the most prosperous and important point in San Joaquin valley. How much beyond all expectation has his prediction already been realized! A change unparalleled! The transformation of dusty plains, on which jack-rabbits could scarcely subsist, into a vast and veritable garden!

By 1875 there were several miles of the main canal and fully one hundred miles of canals and ditches in operation, under the name of the Fresno Canal and Irrigation company, which meant M. J. Church. The settlers had become so numerous and farming so general that the victory of the no-fence advocates, and the advent of the railroad, put a stop to the aggressions of the cattle-barons, and broke up their monopoly of the land.

Numerous other irrigating ditches were being constructed in other parts of the valley, principally in Tulare county. To prevent that prosperity which is sure to flow from irrigation, numerous suits were brought by riparian owners, and up to the present time Mr Church has stepped in between the owners of the water and the riparian claimants, who had commenced their new system of persecution, and defended the farmers and fruit-growers in their rights to water and keep it running to them. The expense of his efforts on their behalf has so far been greater than the amount paid by them for the use of the water, but their rights have been established thereby beyond dispute, notwithstanding riparian claims or any other. In all cases of dispute or litigation Mr Church has been on the defensive; during the past twenty years he has been forced to defend himself and company against two hundred lawsuits, mostly brought about by cattle-men. In every instance in which the determination has been reached, he has won them on a fair trial, but not before every technicality known to the law for delay and evasion had been exhausted. The cost of defending his interest and the interests of others in this long course of vexatious litigation has by far exceeded the entire expense of constructing all the canals. To my mind this is a suggestive fact. It indicates the stuff that the man Church is made of, whereby he was enabled, single-handed, to fight to the bitter end a class of men who, up to the time of his coming, had held undisputed sway, and who, with the arrogance and bitterness of spirit that characterize obstructionists, combined against him as the head and front of the new civilization. It means, also, that the cattle interest, which had its usefulness and value up to the time when a superior interest was introduced, was inimical to the substantial development of the country, opposed to real progress. Their domination in this state, however, is practically ended. The time has come when in the economy of things it will even pay them better to sell for the direct support of men the vast areas they have held for hoofed stock. Agriculture will thus inevitably prevail, even to the enrichment of its most vindictive opponents; thus arbitrary are Nature's laws, the rain falling upon the just and unjust alike.

In the midst of these struggles against cattle-kings and riparian claimants, Mr Church pushed forward work on the main canal, and numerous lateral canals and water ditches, carrying the water between sections and quarter-sections wherever needed, until the aggregate length of canal, ditches, and feeders six years after he began his herculean labor, reached 1,000 miles. In 1887 he sold the entire canal property for a large sum of money to Dr E. B. Perrin and associates. He made a fortune out of the enterprise. His title to it no right-thinking man will question. It was the reward of the severest bodily and mental strain, long protracted and patient. The consequences are wide-reaching and permanent. In enlarging his own estate, he has enriched Fresno county, and indirectly he has contributed millions to the wealth of the state. So that, honored and respected by the best men, and completely vindicated against his enemies, he enjoys a conscience void of offence to his fellow-men and his God. The main feature of his life, the father of irrigation I may call him, is of itself a history. On the very threshold he encountered an unscrupulous organized opposition to his reclamation of the soil for the highest and purest human uses. He is persecuted; his property destroyed; assassins lie in wait for him; he passes through fire and flood. In the end, however, there is ample compensation. To him is due the best system of irrigation in America. The meaning of this cannot be appreciated by any one who is familiar with countries made fruitful by rain alone, nor can its full significance be realized even by those who do not understand the capabilities of California soil irrigated, and its miserable sterility without irrigation. Through his tenacity and patience in litigation the question has acquired a national importance. He secured the repeal of that section of the civil code which recognized the law of England touching riparian rights, and when Haggin and Carr, with whom he was associated in their celebrated suit with Miller and Lux, made a compromise and settled their case, he continued to contend in the courts for the establishment of the rights of irrigation—the principle underlying the great question, although not immediately interested in the work of irrigation. The process of adapting the statutes and of securing judicial decisions in consonance with the natural requirements of the country—a process doubly difficult on account of the first laws and first decisions all going to establish riparianism—has thus been going forward until complete justice is to be hoped for. The prosperity not only of Fresno county and city, but also of Tulare and Kern counties, is largely due directly to his labors, while indirectly the entire region is in his debt. With water thus diverted and distributed, the possibilities of the section as opened up by him are immense, while without irrigation the plains of Fresno might as well have been left permanently in possession of a few blustering stockmen and their vaqueros. The use of water has already given to agriculture and horticulture in many forms a marvellous impetus. Colonies have been planted at several points, cities and towns have sprung into existence as if by magic, and the barren wastes of fifteen years ago have been made to blossom as the rose. The taxable property has increased from less than $5,000,000 fifteen years ago to over $30,000,000 in 1889. And the assessor states that it would be $40,000,000 but for a decrease in the rate of valuation as compared with the previous year. The city of Fresno, the central figure in the unexampled development and prosperity prevalent on all sides, has presented during the last decade a scene of industrial activity and material growth truly astonishing. Nor has the advancement in morals, education, and religion been less pronounced. The progress of mind and soul has been parallel with the unfoldings of agriculture and commerce. Churches, schools, and beneficent societies are numerous and thrifty, inculcating good-will among men, and making plain the still greater truths of immortality. Yet there is no mystery about it; the agent in this grand internal improvement, so far-reaching in its good effects, the man who conceived, planned, and executed it, is Moses James Church, acknowledged by all just men to be the benefactor of the people of the San Joaquin valley.

But while considering the grand and civilizing results of this man's patient, determined, and loyal efforts as a factor among our most successful builders of empire, let us not fancy that he conquered at every step; for while his career was truly Napoleonic, like Napoleon he met with temporary reverses before his work was all done, but in the end surmounting every obstacle by force of intellectual endeavor and strength of character. By one enemy he was for a season cast down, and it seemed that the fruits of his pioneer struggles in developing the resources of Fresno county would mature in other hands, and his title to full credit be clouded and hid under the pretentious claims of others. The enemy referred to is W. S. Chapman, a man widely known on the Pacific coast as a speculator in lands and as a litigant in cases of disputed land questions; a man of unusual ability and shrewdness, but one of that class of disputants whose cunning and energy are not always on the side of justice and equity. When Church had refilled the dry bed of Fancha creek for a distance of sixteen miles, and he was ready to divert it for irrigation, Chapman, who boasted in the public press, that "he had done more for the development of Fresno county in one day than he [Church] had done in all the years he had lived there," appears for the first time with any substantial prominence upon this important scene. He was reputed to be the chief owner in the German Land association, owning one hundred thousand acres on the plains south of Fresno, and had become interested in getting water on these lands. He proposed to come into copartnership with Church in the ditch scheme. His proposition was not accepted. He then came forward and offered, for a one-half interest in the enterprise, to influence the Land association to give one dollar on each acre of their land, the $100,000 to be spent in prosecuting work on the canal. This Church agreed to do on condition that he should retain the controlling interest, by holding two shares more than half. Afterwards, A. Y. Easterby, having four sections of land, and being anxious to get water upon the same, Church turned over to him one-quarter of the stock, upon the stipulation that he should vote with him on all questions. Easterby, owing to financial embarrassments, soon after hypothecated his stock in such a way as to lose the control of it. Church, realizing the danger that he was in, sold out at once, to Chapman, for the sum of $15,000, $5,000 to be paid down, and the balance in one year. Chapman went to work immediately to raise the money. And he did it in this fashion: He sold to the California bank all the water that the ditch was able to carry, for a large sum of money, the bank being the owner of 60,000 acres of land, and needing irrigating water. He then went to the Nevada bank and obtained another large sum of money, for a deed of the ditch—what they supposed to be the canal and the water it contained. This transaction embarrassed both banks, one finding itself possessed of water but no ditch, and the other of a ditch and no water, and each supposing it had got in the purchase a ditch full of water. Not feeling competent with their limited knowledge of the canal business, and being averse to the threatened litigation, and knowing Church to be the most capable and reliable man to appeal to in the emergency, the Nevada bank sent for him, telling him that they wanted him to price the canal, and take it off their hands, that they thought him better able to defend the rights of the canal than they were. Said Church, "I am not able to do it." They replied: "We will make you able; you can take the canal at your own price; give us your notes without security, we will render you every assistance." "Well," continued Church, "less than a year ago, I sold one-quarter for $15,000 to W. S. Chapman, I could not think of offering you any less, that would make the price $60,000." They accepted the proposition, and Church paid them $10,000, and gave his note for the balance, to be paid at the rate of $10,000 a year until it was all paid. The Nevada bank, as they had promised, proved to be his friend.

The California bank commenced suit against him for 200 feet of water, the amount of their purchase from Chapman. The suit was a memorable one, the decision being in Church's favor on the ground that, primarily, the transaction of Chapman with the bank of California was fraudulent and void.

After the property had been turned over to Church by the Nevada bank Chapman commenced an array of suits against him. He again wanted a division of the enterprise with him. Said he: "Half of it will be worth more to you with my friendship and coöperation than the whole of it with my hostility and opposition. If you do not come to terms I shall harass you until I break you up and you will be forced to give me the entire control. You will need my brains." Church did not think so. Hence a term of four years' litigation. At the end of this time Chapman had exhausted himself in the courts in San Francisco and Fresno, and was obliged to give up the fight and solicit a compromise.

Chapman was interested in certain colonization schemes and was in debt to Church for water on contract for a considerable sum of money. In default of payment the Canal company turned off the water. The case was tried in Judge Wheeler's court, and the right of Church to this process to compel payment was established. Chapman owed him, also, by this time, $20,000 on the purchase of one-fourth of the Canal company's stock. His other debt, about $30,000, he arranged to pay, at once, and a settlement was thus effected, which practically put an end to Chapman's schemes to embarrass and obstruct, in order to promote his own ends. Thus, as ever, do live fish travel up the stream, while dead ones float down with the tide. Apropos of this, a brief article appeared in a Fresno paper entitled, "Symbol," and signed M. J. Church, who is the "old man" of the story. It runs thus: "An old ram very much given to butting usurped the possessions of an old man. The latter, having been one day pretty severely butted by the former, made up his mind to teach him a lesson. The old man suspended a block of wood from the branch of a tree. When the old ram came along and saw the object moving in the wind, he squared himself and went at it. He struck it a terrible blow with his brainy forehead and sent it flying far into the air—but it came back to him. This made him very angry and he whacked the block again and still harder. The old man looked on with a broad grin on his face; worn out at last with laughing, he went to bed and left the combatants to settle their controversy in their own way. In the morning when the old man went out to the scene of the struggle, he saw nothing left of the old ram but his tail, but the spirit of fight was still alive in this extremity, and every time the block moved it wiggled defiantly. The marks of a similar ram's tail can be seen at the Central California colony, still trying to wriggle."

A brief comparison will serve to suggest something of the actualities and the possibilities of the San Joaquin valley, the Fresno portion of it being specially considered.

The districts in India in which irrigation is most successful are populated by not less than 200 and sometimes even by 600 people to the square mile.

In Italy we find an average of 275 people in Piedmont, and 390 persons for Lombardy. In Spain, over very large areas, the population ranges between 200 to 430 people, but in some districts it is even more. In the district of Valencia, on the east coast of Spain, we find 26,000 acres, equal to about one township of land with us, that is perfectly irrigated. These 26,000 acres are dotted with 62 villages, containing a population of 72,000 people, which is at the rate of 1,774 persons to the square mile. But outside of this the larger city of Valencia is situated on this district, and enjoys a population of not less than 140,000 people, which, if added to the number of inhabitants in the country, makes 212,200 people supported on a tract of land less than seven miles square. In the district adjacent to Valencia, but where irrigation is not practised, the average population is only 130 to the square mile.

In the colonies about the city of Fresno the population is probably only 130 to 150 to the square mile. An average of five could be easily supported in comfort on any 20-acre lot, and as there are 32 lots on every section, we could expect a population of say 170 people to the square mile, which means a population of over a quarter of a million souls on forty miles square about the city of Fresno and excluding its inhabitants.

A 20-acre lot is not only enough, but it enables its owner to live in comfort, enjoy the luxuries of life, educate his children in good schools, and when his twenty acres come into full bearing he finds that he can live without hard work. This is true of ordinary land, but when the soil is exceptionally good much more money is made. Some 20-acre lots bring the owner as much as $300 net per acre, and at this rate a successful farmer may soon become independent.

As showing this all to be the result of irrigation, contrast Fresno township with that of Berenda, both in Fresno county. The latter was founded about the same time as Fresno, under similar circumstances and with about the same surroundings, but which had no irrigation, had remained *in statu quo*, its assessed value to-day being represented by a few thousand dollars.

In 1888 the raisin product of California was 19,000,000 pounds, one-half of which was from Fresno county; and in 1889 considerably more than one-half. The productiveness of the soil for raisin grapes, and the quantity marketed are simply astounding, hardly to be credited unless seen, out of all comparison with the yield as hitherto recorded elsewhere in the old world or the new. The vines grow with astonishing luxuriance, and at the end of the second year of their growth produce $75 worth of grapes per acre, sold to raisin manufacturers in the neighborhood. The net product from an acre of four-year-old vines is not unusually $300, and I am credibly informed that on selected ground the net product has gone far beyond this. Fresno county stands first in California as a raisin producer.

Most other fruits are produced in extraordinary abundance and of superior flavor. The orange and the lemon have been experimented with only to a small extent, but, as far as tried, they do well and promise valuable results.

The great principle—and I feel that this being the essence of his work I cannot emphasize it too strongly—for which Mr Church has contended, and which he is now engaged in having determined in the courts for all time, is this: That a man should enjoy the right to divert water for irrigation from any stream at any point along its length; that water, as air, should be common to all who have occasion to use it; that water should not by any law be forced or allowed to run to waste while human beings along its banks might utilize it in the production of their daily bread. Riparian right, as understood in common law, prevents everybody up and down the stream from taking out water for irrigating his land, practically compelling it to run down into the ocean.

Water flows and ought to flow as it has been accustomed to flow; the riparian owner is entitled to sit on the bank of a stream and see it flow by his land, for use or ornament, undiminished in quantity and unimpaired in quality; this is the substance of the old English doctrine of riparianism. By the old California doctrine of appropriation of water, the water belonged to the first appropriator, and so long as he held it for use and not for speculation, the law protected him in his right to it. This was the law based upon the requirements of water for mining purposes. In Colorado, where irrigation is a necessity to agriculture, the old common law doctrine of riparianism was overruled, in a series of able decisions—the whole principle being therein plainly set forth, that it was the duty of the court to select the system best adapted to the wants of the state—the system that would confer the widest benefits, and declaring that the conditions of the state made the English riparian doctrine contrary to public policy, and inapplicable and injurious to the interests of the people. The legislature of California has not made similar progress. It has struggled with the spook of riparian rights, so far without reaching any definite and final enactment; but the trend is now in the right direction. The pressure upon it is growing constantly; the supreme court, as now constituted, is understood to favor irrigation. The Gordian knot will not probably be cut, rather unravelled. The Wright law, passed in 1887, does not go quite so far as to assert that all rights in the waters of our non-navigable streams must be subservient to tillage, but it provides for the formation of irrigation districts, the residents of which may incorporate, issue bonds to get money for irrigation works, condemn watersheds and reservoir sites, assess damages and secure to themselves, by coöperation advantages that they could not obtain by individual effort.

The effect of new blood in the supreme court was shown in its decision, rendered the latter part of July 1889, in the case of A. Heilbron *vs.* The '76 Land and Water company, in which it took occasion to formulate opinions consistent with the needs of this state, and to leave but little ground for riparians to stand upon. Its effect is to set up a bar against speculators who have secured a footing at the sink of the lesser rivers, or on the margin of streams, from which vantage ground to have the sovereignty over a broad reach of valleys and hillsides for unlimited stock ranges, with no neighbors or obtrusive civilization to bother them.

Mr Church has spent over $100,000 to have whatever law on the subject that existed equitably and reasonably applied to new conditions in this state, and that the greatest good be done to the greater number. He will spend $100,000 more if necessary to establish a free and perfect right of irrigation. But, as stated, the law is being so interpreted. The delay toward this has been due to the political manipulation at elections, and supposed to extend into the courts. On the side of humanity and justice in irrigation suits, Mr Church, who does nothing by halves, has had engaged the best legal talent on the coast, John Garber, Harry I. Thornton, and David S. Terry. To these men and to W. H. L. Barnes, who was his attorney in the Chapman cases, he has already paid the sum of money mentioned for services in defence of the rights, practically, of the state of California. Thus he has carried on the fight, not being satisfied until it has been won in every particular—until the fruits of his struggle through the years have been made secure beyond every peradventure—until every obstacle in the way of irrigation has been removed for once and for all.

When the conditions which gave rise to a law no longer exist the law itself should cease to exist, because it then becomes superfluous or dangerous. The doctrine of riparian proprietorship comes down to us from the unwritten law of England, and has been adopted in many parts of the United States. I assume that this is as it ought to be, owing to similarity of conditions. In a country like England the law of riparian rights is a consistent rule. There irrigation is unnecessary, streams are numerous and run full to the sea at all seasons of the year, and their principal use is to turn the wheels of machinery. But no such system could have grown up in a land unfettered by an inherited code where broad lands lie under the sunlight needing only irrigation to cause them to bear abundant harvests, but perpetually sterile without it.

But why should that ancient rule apply in California? Even nature cries out against it. The winds from the Pacific ocean withhold their moisture until they reach the Sierra Nevada, the cañons of which are snow reservoirs. The San Joaquin valley thirsts for water. The mountains, in fulfilment of their functions, send down a copious flood to quench the thirst of Fresno plains. If not for this, then for what? I can find no more conspicuous evidence of the creator's design than this. Can man fly into the face of nature? Yes; short sighted persons are doing this in one way or another all the time,; but their artifice leads only to destruction sooner or later. They do not realize that man himself is a part of the organism of creation, inanimate and animate, and that his safety and happiness depend upon a recognition and appreciation of nature's laws, and a life spent in harmony therewith. Shall God's precious gift to man, water, be withheld from man by man?

There can be no law for this which humanity will hold valid. Society will protect itself against such aggression, and its agents are forthcoming when called for.

These are Mr Church's views. They inspired him and made him the champion of a cause which but for him might have waited long for another.

I have endeavored to present an estimate of those things which have been done by and through him in irrigation. Had he not been called to this mission, just what he has accomplished might never have been accomplished, or else indefinitely postponed, and its possibilities so greatly lessened as to impair the growth of California in her most important industrial department. His coming was as the coming of Moses, for he brought with him release from thraldom, and a new life.

Still, in ascribing to him this mead of praise, which is his without qualification, I would not depreciate the work of others in irrigation. In fact this art is older than all record. It had its birth here and there throughout the world in the necessity to support dense population. But it must not be overlooked that, while the subject of irrigation was familiar to the ethnologist and historian, it was new and strange in California in 1869, so far as any purpose was manifested to put it to use. Little patches of land were watered as flower gardens, vegetable gardens or orchards; but until M. J. Church undertook to divert the waters of King river there were no steps taken in this direction in any way worthy of note. I have spared no pains to ascertain this, and I am convinced that to him is due the credit of first discovering the possibilities of reclaiming arid land in this state by irrigation, or certainly, which is more conclusive, that he was the first to actually reclaim such land and demonstrate its capabilities. No great and valuable idea has ever been put forth, no enterprise of pith and moment planned, but has given rise to controversy as to the originator; hence I deem it only just to bear witness, so far as my investigation goes, and I believe it is sufficient, that he is one of those entitled to the honor and credit accorded to him in this record. Others may have had irrigation in mind; they may have discussed its feasibility; they may have intended to test it sooner or later, in some practical manner, but the fact is that no one, but he, did anything to give form and vitality to such a conception. He is a man of original and independent thought, and I fancy that the problem suggested to him by observation on the Mecosme ditch was wrought out chiefly in his own mind. I apprehend that he did not go into books deeply, if at all, to familiarize himself with the experience of nations in the artificial distribution of water for agricultural purposes. It appears that his reasoning was altogether in the concrete. He saw what a transformation water had made in a little garden and orchard in the foothills of El Dorado county; his thoughts once set to running in this channel, he noticed that everywhere water touched the thirsty soil it responded gladly and generously; he noticed that whatever was planted, incidentally or accidentally, on Fresno plains grew luxuriantly if it was only moistened. An evolution was in process in his mind; facts pregnant with suggestions to him, however, went unnoticed by others, who rode and walked heedlessly over treasures greater than California's mines ever yielded, looking always for riches to more remote and less certain sources. The stages by which he reached his magnificent deduction are surely simple, but so are all great things after they have been explained. If he derived his information from books and by adaptation of knowledge so acquired, what a precedence it gives him over all other students of his time and in his department of industry in California! There are two classes of distinctively and equally useful and worthy men: those who discover and those who apply.

Certainly Mr Church stands preëminent among the latter, and I am inclined to believe that it was largely by force of his own practical reasoning from cause to effect that he reproduced results similar to those arrived at by ingenious minds from time immemorial. The day will come when his name will be second to none among the promoters of wealth, civilization, and power in this state, and though for the present what is written may not be fully appreciated, time will emphasize its seriousness. His achievements, under new and perplexing conditions, give him a place in other than local annals; he has contributed, by his talent and toil, to the industrial history of the world, and in the universal record his name should be preserved. To understand the work that he has done, single-handed and alone practically, let us take a rapid view of the history of irrigation, noting that its development and control has been largely a community affair or in the hands of government.

Irrigation, it need scarcely be said, is no new thing. Tradition asserts that Noah constructed a zanja from Mount Ararat to water his vineyard, and it is probably true that in nearly all oriental countries, extending far back into prehistoric times, canals and aqueducts were built to convey water long distances to fertilize extensive desert wastes. In all the highlands where the sources of the Euphrates rise, in Persia, in Egypt, in India, and in China are works of this sort, which must have been in existence before man had begun to record his own annals.

The summers in Egypt, in Syria, and in Asia Minor are almost rainless. In such climates the necessity of irrigation is obvious, and the loss of the ancient means of furnishing it helps to explain the diminished fertility of most of the countries in question.

Upon the Nile to-day, just as it was thousands of years ago, one still hears the creaking of the water-wheels through the whole night, while the poorer cultivators unceasingly ply the simple shadoof, or bucket and sweep, laboriously raising the water from trough to trough by as many as six or seven stages when the water is low

Says Ritter: "The civilized people of Egypt transformed, by canals, the waste into the richest granary of the world. They liberated themselves from the shackles of the rock and sand desert, in the midst of which, by a wise distribution of the fluid through the solid geographical form, by irrigation, in short, they created a region of culture most rich in historical monuments."

No matter in what part of the world investigations are made, they all result in the discovery that irrigation is a very ancient art, and that it was practised by the former nations of the earth on a most magnificent scale. Mr Rich, whose residence at the court of Bagdad with the powerful protection of the pasha afforded him every facility for comprehensive investigation, describes the whole country around the ruins of Babylon, a distance of forty-eight miles, as a perfectly flat and uncultivated waste, but states that it is evident from the number of canals by which it is traversed that it must have been formerly well cultivated. M. Jules Oppert has succeeded in making a series of minute surveys and in drawing up detailed plans for the immense city. His opinion is that even the largest calculations as to its vast extent are not exaggerated, and he puts down that extent at the astounding figure of 500 square kilometers, the square kilometer being 1,196 square yards. This is very nearly eighteen times the size of Paris. This enormous area, however, was not all occupied. It comprised within the walls huge tracts of cultivated lands and gardens, all of which were irrigated from the Euphrates. Nineveh, too, under the indefatigable labors of Layard, has been shown to have contained a network of irrigating canals, many of them cut out of the solid rock.

Some of the magnificent canals in the Punjab system which has converted that section of India into a luxuriant garden, are the old ruined canals of former dynasties repaired and enlarged. Mention of irrigating canals are found in the annals of Akbar's reign. As early as the fourteenth century Feroz Shah had a large canal dug to bring water from the mountains to Hissar and Shahsie. Akbar found this canal in ruins, and passed a "canal act," ordering it to be repaired and enlarged, so that "this jungle, in which subsistence is obtained with thirst, be converted into a place of comfort, free from all evil."

The Moors were great well-diggers, and were experts in the irrigating art in all its forms. So careful were they in maintaining the details of their system that they kept in public offices bronze models of their dams and sluices as guides for repairs and rebuilding. They carried the art into Spain and Sicily, just as Egypt taught Assyria and Babylon, Carthage and Phœnicia, and so by gradual degrees to Greece and Rome.

Modern India affords us the most conspicuous example of irrigation on a grand scale, and it is here more than anywhere else in the world that it is conducted according to one great systematic scheme. In most other countries irrigation is merely an accident. In many parts of India irrigation is the very condition of existence, both of the government and of the people.

Thomas Stevens writes of the great India irrigating canals in quite a picturesque and enthusiastic manner. "I do not remember anything," he says, "that impressed me more favorably as a genuine economic enterprise the whole world round than the canal system of India. People go into raptures over the Taj, the elephanta caves, and the other wonders that are to be seen in India, but to me the most wonderful of all were the canals that have practically rescued the teeming millions of the peninsula from famine."

France is the country of Europe where one finds irrigation practised under the greatest variety of physical circumstances, and at points widely separated, and where in consequence a great diversity of interests exists and a wide range of practice has grown up.

Besides the great variety of physical conditions and results surrounding and attending irrigation, we find in France an example of an attempted complete governmental control of irrigation and water-right matters, under a comparatively liberal form of government, and amid a free and enlightened people. The government of France has of late years specially encouraged irrigation in a variety of ways, and here one finds examples of irrigation enterprise both ancient and modern, and of all grades and forms of organization—from the small private ditch project to the large, costly, and complete canal system, wholly built and managed as public works of the nation.

As a general thing, however, France is less an irrigation country from necessity and for general profit than is California, the valleys of France, with exceptions limited to small regions, receiving from sixteen to thirty-two inches of rain each year, while ours of California receive only ten to eighteen inches as a rule. The necessity for and value of irrigation in France was not sufficiently appreciated by the generations past to bring about a general sentiment in favor of national encouragement to irrigation enterprise. Irrigation there, as in California, has been until within the past few years looked upon more as a local necessity than as a valuable auxiliary to general agriculture.

In Belgium irrigation is extensively practised in the district La Campine, where the whole process is carried out in the most methodical way, and under strict governmental supervision.

Artificial watering in a desultory manner and to a limited extent is carried on in Portugal and Greece, as well as on the table-lands of Moravia, Poland, and parts of Russia, and the hot valleys of Persia and China.

When the Spanish conquerors overran Peru they found the agriculturists of that country practising the art of irrigation in much the same manner as the Spaniards had learned of the Moors. When Cortés conquered Mexico the same practice was observed among the Aztecs; and so, too, it has been found that other native races of the Pacific coast knew of the advantages of the artificial use of water, and put that knowledge to use. By the aid of artificial distribution of water it is shown how comparatively small tracts of naturally desert country were made to support a dense and powerful population, while with the cessation of the art came decay and desolation. It is shown again that the early rulers of the earth believed irrigation to be as important an institution as a standing army, and that it was considered of equal importance to reclaim the sterile land as to conquer neighboring nations; and that the works constructed in this belief stand among the engineering and architectural wonders of the world. On the mainland and throughout the Nahua territory, few fertile spots were left uncultivated. The land was densely populated and irrigation was a necessity.

The San Francisco *Chronicle* of August 23, 1889, in an able study of irrigation, in which article I find some of the preceding notes handy for my own use, makes the following pertinent remarks:

"California owes no small share of the position which she occupies to-day to the help which has been derived from irrigation. Almost every step which the state has taken in advance has been anticipated by new developments in the application of water to the purposes of agriculture. It is not too much to claim that, were it not for the utilization of the waters of her many streams upon the apparently sterile and desert-like wastes of the interior, the fame of California would still be confined to the product of her mines; and the oranges, raisins, and wines which have made the name of the golden state known the world around would never have had existence. Were it not for the advance which has been made in the last twenty years in the science of irrigation the population of California would not be half the number that it is to-day. Whole districts, which are to-day thickly populated and in the highest degree productive, would still be in their normal desert condition and fit only for the habitation of the coyote and the rabbit. Without irrigation the major portion of the San Joaquin valley and the bulk of the three southernmost counties would be in the same barren condition in which they were found by the padres and the earliest settlers as they pushed northward from Mexico.

"It is not intended to claim that without irrigation California would have had no agricultural development whatever, but those familiar with the history of the state will concede that that development owes three-fourths of its present actuality to the care of water. Even in those portions of the state where many branches of agriculture have been successfully pursued without the aid of water, it has been shown that when irrigation is adopted better returns can be realized from one-third or even less the area that is necessary without that aid. There are many sections of California to-day where farmers will boldly claim that they have the greatest difficulty in making a bare living from the cultivation of half or even an entire section (640 acres) of land. Yet close by them will be found others who, with a far less outlay of capital and labor, secure returns tenfold more ample from not more than twenty or thirty acres."

As to amount of development consequent upon irrigation, Fresno leads all the other counties of California. Says the San Francisco *Chronicle:*

"Less than twenty years ago a few scattering stockmen and miners represented the entire population of the vast territory comprising the five and a half million acres of Fresno county. The waters of her numerous streams flowed unheeded toward the ocean, and of the million and a half fertile acres of the valley not enough was under cultivation to afford sustenance for a single family. Cattle and sheep ranged the plains during the short period when pasturage was to be had, and the man who had the temerity to suggest that the soil was fit for the plow was laughed at as little better than a lunatic. The entire valley, for the greater portion of the year, was in truth a desert, and those who were best acquainted with it were hardly to be blamed if they fancied that the man who paid one dollar an acre for such land was little better than an idiot.

"But what a contrast is seen to-day. The desert of twenty years ago has disappeared along with the long-horned cattle and scrubby sheep. In place of the hut of the sheepherder may be seen the handsome homes of thousands of well-to-do settlers, while the site of the corral, round which the coyotes howled at night, is now occupied by a bustling, substantial, enterprising city of 20,000 inhabitants. Where the stock wore trails in their daily journey to the river for water are now immense irrigating canals, and where they found hard work keeping life in their gaunt forms on the scanty herbage of the plains are now thousands of acres of fruitful orchard, vineyard, and alfalfa.

"And when the traveler who perchance had passed this way twenty years ago notes the change and inquires by what means the marvelous work has been accomplished, he receives the solution in one word—irrigation.

"In 1869 the first diversion of water for irrigation was made from King's river by M. J. Church and his associates, who had taken up a large tract of government land, which they proposed to irrigate. It is upon some of this land that the city of Fresno now stands. These pioneers in irrigation were met with every discouragement possible. They had no capitalists at their back to furnish means for the prosecution of the work, but were obliged to roll up their sleeves and go to work themselves with pick, shovel, and scraper. They were met by all sorts of discouragement from the cattlemen who had had full sway for so long, and the least of whose opposition was the sneer that the plains could not be made to produce enough to keep a jack-rabbit from starvation. When the indomitable settlers finally got the water on the land and put in their first grain crop by the aid of irrigation, the cattlemen did all they could to ruin the farmers by turning stock into the grain-fields. and annoying them in every way that fiendish human nature could suggest. But the farmers persevered, and even the stockmen were obliged to confess their astonishment at the immense crops produced by the aid of irrigation on land which they had always deemed worthless for agricultural purposes.

"Although practically the growth of irrigation in California has been confined to the last thirty years. yet that period has witnessed some of the most marvelous changes that any country has ever seen. Tens of thousands of acres of sterile wilderness in the counties which have been named have been converted into orchards and vineyards of a productiveness which staggers belief. Lands upon which men have died of starvation and thirst have been converted into scenes of tropical beauty and fruitfulness which cannot be equaled in the world. Thousands of prosperous homes have been erected where but a few short years since naught but a solitary waste had existed since the foundation of the world. Millions of dollars have been added to the wealth of the state, and tens of millions more yet remain to be brought from the soil with the aid of water. Though what has been accomplished is little short of miraculous, it is after all but a small beginning. Where one acre of desert has been reclaimed there are a thousand still awaiting the vivifying application of water to bring forth fruit in abundance. Where a single stream has been utilized upon the parched earth there is still a thousand-fold more water that can be made available by the adoption of methods of preservation and distribution which are perfectly understood."

In many ways Mr Church has been a builder. He has assisted materially in the building of every church in Fresno county, and some years ago he donated five acres of ground to each of the church organizations, and the same to each of the fraternal organizations and benevolent societies, and ten acres to the county for burial places for the dead. In the fall of 1889 he erected a church in Fresno, on the corner of Mariposa and O streets, for the seventh-day adventists, fashioned after the Metropolitan temple, San Francisco, which seats from 1,000 to 1,500 persons, and cost about $45,000. He is a liberal and cheerful contributor to the elevation of man by every worthy means. He enjoys his wealth for the good it enables him to do. He counts neither time, toil, nor money devoted to an ennobling, humanizing end. This church is worthy of note, and merits more than a general reference. It is certainly the handsomest and most becoming house of worship in southern California.

The building is of brick, sixty-one feet six inches wide, by one hundred and nine feet six inches long. It is entered from O street by a portico thirty-one feet long, and a front entrance twelve feet wide, finished in granite, on either side of which are toilet and cloak rooms, with double stairs leading to the gallery.

The auditorium, with bowled floor, fifty-four by sixty-one feet, has six entrances, and four mullion windows, all square heads, finishing close under the gallery, which is supported by a stringer on five iron columns, with large gothic capitals, the ceiling under the gallery and the stringer being finished in white and gold, and the columns in antique bronze. On each side of the windows is a wall pilaster, finished in two tints of Sicilian marble and moulded edges and bronze moulded sunk panels, the bases, dadoes, caps, rosettes, and their moulding being in antique bronze.

The rostrum, five feet high, sets out from a large pilastered alcove finished in granite and marble, the pilasters being finished to match the others, and being surmounted by a flat, gothic arch in marble white and gold, with pinnacles also in white and gold.

The back of the alcove contains the decalogue and appropriate mottoes. In front of the rostrum is the middle platform, four feet high, containing the baptistry, in front of which is the choir platform, one step high, inclosed by a paneled balustrade.

The side entrance, on Mariposa street, finished like the front entrance, in blocks of granite, and antique bronze doors, opens to the side hall, the parlors, the chapel, and by-stairs to the primary and intermediate rooms of the Sunday school, and to the gallery, which is approached through four entrances from four flights of stairs. The wainscots of all the halls and stairways, except those in the rear, are finished in cherry, amaranth, and mahogany in the natural wood, with long and short panels alternating.

The gallery has a terraced floor and paneled balustrades, with rosetted corbels, finished also in natural wood, as above. On each side of the gallery are three mullion windows, with flat, pointed arches and diamond-shaped transoms, on each side of which is a pilaster finished in marble and bronze, like those below. Opposite the rostrum is a large triple window, with equilateral arched heads and large spandrils, set in a gothic alcove, with tall gothic columns of iron, finished in bronze, to support the main tower. On either side of this alcove is a smaller one, set diagonally, containing a mullion window with equilateral arched heads and large transom.

The ceiling, about forty feet high, is shaped like a platter, fifty-four feet wide by eighty feet long, with collar beams and curved ribs, all moulded, and setting on twelve antique bronze brackets on the wall pilasters. The ceiling is well tied by eight tie rods, with brace and king rods, which meet at eight ornamental wheels, finished in white and gold.

The auditorium is lighted below the gallery with twenty-four gas jets, and six extra jets for the speaker and choir. From the gallery ceiling are suspended three New London sun-burners, one having seventy-two jets and the others twenty-four each, with ventilating pipes, finished in white and gold, running through the roof. The ceiling is otherwise ventilated by sixteen openings, and beneath the gallery are fifteen register ventilators.

The building is heated by a twelve horse-power engine, and by hot-water pipes and radiators. The hot-water pipes also run to the wash-bowls and the baptistry.

All the windows and transoms are of stained glass—cathedral, Venetian, opalized, and jeweled. The windows and all doors are protected on the outside by wire screens.

The auditorium and gallery have a seating capacity of 1,500. The chairs are all set in curves, except those in the straight sides of the gallery. The gallery chairs have tilting seats, and are finished in mahogany, black enamel and gilt; the auditorium chairs have tilting seats and backs, and are finished in mahogany, maroon enamel, and gilt.

The exterior of the building is finished in pressed brick, with flat pilasters on each side of the openings. The roof is a gambrel, with main and deck cornices, having gables over the openings and pinnacles over the pilasters. At each of the three street corners of the building is a pilastered tower, set diagonally, with steep lapped roof. Over the front entrance the main tower rises one hundred and five feet from the sidewalk. This tower is reached by a walk over the gallery ceiling, leading from the Mariposa street stairway to the pendulum room, which is surmounted by a steep, square dome, in which is the clock movement; above this is the dial-room, with four dials of plate glass, six feet six inches in diameter, ground on both their sides, and lighted up at night. Above the dial-room is the belfry, containing a bell-metal bell weighing with its mountings three thousand five hundred and fifty pounds. The clock is a tower clock, with fourteen feet pendulum, and strikes the hours. The belfry is surmounted by a two-story square dome, which carries the clock weights. Each story of the tower is finished with neat cornices, and the vertical parts with pilasters and spandrils in Philadelphia stone.

Mr Church is the father of ten children, five of whom survive, two daughters and three sons. They are named Lorenzo, John M. and George F.; the daughters are Mrs Lodema Fanning and Amanda Munn. They are married and comfortably settled on farms in Fresno county. They are inclined to a way of living less stirring and energetic than that which characterized his labors. His wife, who had been a faithful and devoted companion, a sharer in all his trials and triumphs for forty-six years, died on the 14th day of February, 1888. Mr Church has a number of grandchildren who promise well. His granddaughter, Lenora Dorsey, adopted by him in her infancy owing to her mother's death, took lessons in painting in San Francisco, and exhibits unusual talent.

Mr Church takes a bright view of California, both as to population and material wealth. He thinks that 5,000,000 inhabitants within the next decade not an extravagant estimate, and that the increase in real estate values in many parts of the state will not be less than 100 per cent during the same period. He entertains an idea that is peculiar regarding immigration into the United States, to wit, that not only individuals but nations will flow into this country under the impetus of religious union. He believes that California will be the ground upon which civilization will reach its highest development.

Mr Church never united with any fraternal organization except the good templars. He is strictly temperate in all things, a man who does not live to eat, but who eats that he may live and labor. He hates every moral sham in whatever form it may appear or whatever benefit it may propose, being convinced as the tree so will be the fruits. In 1887, while on a visit to his old home in Pennsylvania, he attended the sessions of the national reform and prohibition convention, and contrived to be present at their secret counsels. He was honest in his desire to understand their motives and manner of work, but learning that they were altogether inconsistent, intriguing for power and place, using religion only as a blind to keep to themselves the spoils of office, he became disgusted and withdrew, preferring to labor alone, if need be, although at a disadvantage, than to ally himself to a dishonest association.

In politics he was a whig, and voted for William H. Harrison in 1840 and Clay in 1844. In 1888 he voted for Benjamin Harrison, and has been a consistent republican since the demise of the old whig party in 1856. He is a strong advocate of the doctrine of protection, and believes in a tariff that will protect. He is thoroughly American, his motto being America for Americans.

He apprehends great danger from making citizens of all sorts of demoralized and degraded immigrants, who neither understand nor care for our republican institutions; hence he looks upon a revision of our immigration and naturalization laws as essential. But his greatest fear is a transformation and perversion of the spirit of our government by a union of church and state. His impressions regarding this matter are radical. He believes a certain state of things to be true, and draws conclusions therefrom that are startling, though rational, if his premises be well taken. He looks upon religion generally, at this day, as a condition of actual apostasy, the churches almost universally having none but a secular ambition. His opinion is that the struggle for ecclesiastical supremacy has been transferred from Europe to America, and will be brought to issue within our own government. He considers that a recognition of God in the constitution, which all churchmen desire to secure, would be the opening wedge. All creeds unite for this purpose, then step by step religion supersedes law, and then the strongest and most ingenious sect usurps control. In his mind this sect is the catholic church, which is already numerous, wealthy, and influential, and is rapidly outstripping the other denominations—a most ambitious organization, laboring to rule in the temporal councils of the earth. Let there be a union of church and state, and the church will be that of Rome.

As extravagant as the idea may appear to others, he expects to see this union an accomplished fact, and the vatican transferred to our national capital. Rome in Europe and Rome in the United States, a gigantic and tireless organism, is working towards this end. Put God into the text of our constitution, later supplement that amendment by prescribing how the divinity shall be worshipped, that is, according to the tenets of the dominant church truly militant—let this be once fixed, and the immigration of individuals to the United States will be changed to that of nationalities—whole communities and states rallying around the banner of the cross, that it may again sway the world, and that they may wax fat under it. In this he sees the death of our republic, for the end anticipated contemplates only one religion and the state swallowed up in it.

In the convention of the national prohibition and reform party, referred to above, he found the whole United States divided off into districts, a secretary for each, who presides over it and watches, and at the end of the year they report progress, stating what they have done within the state and district, and how the people all stand. He heard all their reports, made within closed doors, only certain parts of which were allowed to be published. It was reported that the catholics were striving to capture the working men's party. The secretaries, who stated that nearly the whole south was in sympathy with the movement and that good progress was being made in the north, were instructed to labor with the working men's party and the young men's christian association.

The catholics and the protestants appeared to be working in opposition; the former are not demonstrative, but encourage in every way they can the work that is going on. As to the working men's party, it was finally concluded that it made no difference whether they won that party or not, so that it would go with them, or whether the Romanists did, it would all work the same way.

Says Mr Church, whose report I quote: "As you know, Cleveland was defeated at the last election. It is no wonderment to me, because I know how it was done, and it will always be so in the future. Every principal candidate is going to be interviewed from this on before election—interviewed by a man that he knows nothing of and does not suspect. He will express his views regarding a national Sunday law, or the recognition of the almighty in the constitution. His views, if favorable, are made known through the *Christian Statesman*, published in Philadelphia, to all national reform and prohibition people, and they throughout the union work for him as their champion.

"You ask me how the conflicting religions can unite on such a measure as this. I will explain. The protestants and Romanists are a unit in this matter for the present. I was invited to attend their meetings, in which their ministers came together to see if they could not agree upon a plan of consolidation. They have agreed upon a plan of consolidation everywhere in the United States, and the people do not understand it. A convocation of this kind in Fresno was at work six weeks before they could agree.

"Says the baptist: 'I cannot see how we are to combine.'

"'Well,' says the methodist, 'state your objections.'

''In the first place, I believe in baptism by immersion," replies the baptist, 'and you believe in sprinkling. I cannot give up my belief and you cannot give up yours.'

"Says the methodist: 'True enough, but there is a baptism that supersedes the necessity of any water baptism, that is, baptism with the holy ghost and with fire. John the baptist baptised with water, but Christ, who was mightier than he, was baptised with the holy ghost and with fire.'

"Well, they argue back and forth, and finally decide that they can agree on that. They pool their issues, to speak profanely. Then comes the sabbath question. The real sabbath, the seventh day set apart in scripture, is ignored to suit all. The Sunday, the first day of the week, is an institution of Rome, but shortsighted and bigoted protestants overlook that in their haste to acquire legal recognition of the great creator."

No later than the summer of 1889 Dr Wilbur F. Crafts, the secretary of the American sabbath union, came and lectured throughout California in advocacy of a national statute enforcing the observance of Sunday. So far as the public are informed through the press, he does not seem to have met with such a reception as Mr Church's apprehensions would indicate. In fact he was very tartly admonished that no effort to confound religious and civil affairs will be countenanced on this coast. To the credit of Californians it should be noted that this is the only state in the union which has not some sort of a Sunday law.

Mr Church, in addition to his other enterprises in Fresno county, built, in the centre of the town, a large flouring-mill, turned by water-power, furnished by one of the branches of his canal, which passes through the heart of the city—an institution which has saved the people of the country three or four hundred thousand dollars yearly in the price of their flour, and has been of great convenience besides. This constant and living stream of water, 140 cubic feet per second, flowing uninterruptedly throughout the year, furnishes and will furnish for time indefinite an excellent means of sewering the growing city of Fresno, in a way that probably no other city on the coast enjoys, while it is invaluable also for fire purposes.

The circumstances attending the introduction of this ditch and the construction of the mill form an incident showing fairly the spirit of the times, the general state of things and the character of the man whose life and historical factorship are being considered. He is seen, as on various other occasions that might be named, in the light of a man who in thought and action was in advance of the people about him; also, necessarily, in the light of a man who was not understood or appreciated at the time In order that such men may be comprehended and properly measured, the community must be allowed a season, sometimes a good long season, to familiarize themselves with facts accomplished and the author of them. But to the story, which is suggestive of all I note and much besides. As Fresno began to be built up pretty substantially, Mr Church, with pioneer instinct, saw the importance of having a flour-mill somewhere. The town needed it already, and would need it more and more. He looked about for an eligible site, with the view of offering an inducement to somebody to come forward and put up the mill. He thought the nearer town it could be located the better. He made a survey, and found that it could be put almost in the heart of the town. He published in a local journal a notice that he would give any good man of means the water privilege to run the mill, if he would come and start it, and that there was as good a location in the town for a mill as anywhere in the state, water-power of fifteen feet fall. Two men from San José came to see him and at once fell in with the idea, and went to work buying lumber and excavating for the foundation for the mill. Mr Church began to deliver water to them at the mill, according to agreement. About the time that he had the ditch dug they quarreled, whereupon, to save the enterprise and make it a success, he paid them for what they had done, and went on and built the mill himself.

As the work on the mill drew near completion all the citizens in the town began to wonder what was to be done with the waste water, a tremendous volume to be disposed of surely. In the first place they had thought it impossible to ever get water to the mill, and, in the event that he should, it was generally considered that it would be impossible to run the mill, from the simple fact that he could never get rid of the waste. That question, what he was going to do about it, was often asked Mr Church. His ordinary reply was: "Don't give yourselves any uneasiness on this point, I will find a way to get rid of the waste." When the time came he commenced, as he had previously meditated, to make a waste ditch through the centre of Fresno street, that is, pretty nearly through the centre of the town. He started this one Sunday morning,—on Sunday because on that day he could not be enjoined; besides it is not the sabbath recognized by his church. The town was soon aroused and filled with indignation, upon seeing thirty head of horses at work, ten span to one big ditch-plow, plowing up the very middle of the chief and best street, from end to end. The first man who discovered it, warned Mr Church to quit, and threatened him with all the horrors of the law. "Stop the work yourself," was the quiet reply he got. Mr Church had his men all instructed; they knew what they were about and they would carry out their orders to the letter. It was not long before over two hundred excited people gathered round; and, finally, as the teams kept on as though there were none present, messengers were sent off to the board of supervisors, with an idea that the whole thing would be stopped. But, before noon that day, a ditch was finished through the entire town, to carry not less than a hundred feet of water, four feet deep and about fifteen feet wide. The committee that had been dispatched to the supervisors came back, and all hands settled down with the idea that on Monday Church would suffer for what he had done. Meantime the board of supervisors and the district attorney investigated the matter as to what plan to pursue. Church was interviewed by the district attorney, who, after he had indulged himself in impudent remarks and threats, was invited, just for the fun of the thing, to go and examine the records and see if he could not discover there that Church had a legal right to do what he was doing. He did so and found the right recorded as indicated from the land association, owning over 80,000 acres of land in Fresno. They had given him a deed to the right of way over each and every section of land for ditching purposes, given before Fresno was laid out as a town, and with the right reserved forever. "Now," said he to his complainants, "go to the Central Pacific railroad company, to whom the town-site sections had belonged, and who have a good deal unsold, and ask if they did not make me the same grant." In fact, they had not far to go to find that the railroad company, at its own expense, put in the culvert under the railroad, to carry off the waste water, and, besides, as an acknowledgment of the value of the work that he was doing for the town and county, they donated to him a whole block, with the privilege of selecting it in any part of the town. And so the clamor ceased. The waste ditch, however, was soon covered with planks and earth and the street looked just as any other street. Church had seen all this from the beginning but his neighbors had not. He allowed them to lash themselves into a fury and then he let them down gently. At this time there is scarcely any consideration that could induce the Fresno people to give up this ditch, which seemed at first only a nuisance and an outrage.

It is impossible to give a satisfactory idea of the moral or humane aspect of Mr Church's character—to make the portraiture complete, in this respect, without noting, however briefly, some of the many other useful and beneficent acts of his life. They tell their own story.

The things I refer to are not such as ordinary men do. They are peculiar to him in this, and manifest the principles which have inspired and guided him throughout his career.

His life in Fresno county has been one of continuous strife with certain people, as explained ; his friends have been loyal and true, but his enemies have been bitter and vindictive.

He has not lost any of his kindly feeling for his fellow-beings, however, because of some adversaries who persecuted him, and would have rejoiced at his death. On the contrary, his faith in and love of mankind has been deep and warm all the way through his conflicts. This has been evinced in many ways. but above all in this : that where his labors have resulted in his personal aggrandizement, his neighbors have been vastly more profited by them in the aggregate than he himself. A careful analysis of his plans and methods will show that this result is not incidental, but that he intended and calculated that the consequences should be just what they are. In fact, there is so little that is selfish or grasping in this man's nature, that if you do not see in him an exemplification of discriminating, practical philanthrophy you can have no conception of his character, or appreciation of his generosity or intelligence. For instance, he built and equipped a sanitarium in Fresno some years ago, and has conducted it on a small scale up to the present. Does doubting Thomas ask whether it was not undertaken as an investment, a money-making scheme? The history of the institution is offered in answer. It has been pecuniarily self-sustaining. It was never planned to do more. This is the height of the founder's ambition. There are public charities which could be made to sustain themselves, and their efficiency and usefulness would be all the greater in consequence, for thrift expands and improves benevolent institutions. Mr Church could have turned an honest penny in his sanitarium if he had wished to do so, but by making his charges for the care and treatment of patients very easy, or by remitting them in cases of need altogether, he has really contributed the profits which he could have controlled to the welfare of the community, in the form of the comfort, relief from misery, and restoration to health of many who live to pay or not to pay, but who all bless his name. I was much interested by a visit I made to this institution in July 1889. I saw those in charge of the sanitarium, the physicians and nurses, and also a number of the patients. The expression of all was with one accord, as I have stated.

In 1890 he began to build a new life-saving and pain-killing institution, which in size and appointments is the largest and best of its kind on the Pacific coast. I speak of it, by anticipation, as finished. It is constructed outwardly and inwardly upon the most improved ideas, and while it is the same beneficent institution in principle that its predecessor was, it differs from it only in the enlarged and magnificent scope of its usefulness. The system of treatment is hydropathic or nutritive, and is intended to remove or counteract diseases without the use of medicines. The method is not a new one, it has been tested by experience, and has been found, in the practice of many learned and philosophic physicians, to be the simplest, most rational, and ordinarily the most effective cure; in other words, it is the use of strictly natural and simple means for the assistance of nature.

The theoretical basis of hydropathy is wide and fundamental enough to include within its scope all diseases; for all morbid conditions of the human economy may be influenced materially by the regulated use of heat and cold, by means of bathing and other water appliances, coupled with a strict and rational system of diet, which in the hands of honest and skilful practitioners are recognized as powerful factors in therapeutics. But space will not allow me to discuss hydropathy, or, as it is more commonly called, the water-cure, at this time. My idea is merely to note the incident, as suggestive of the kindly and generous impulses of the man through his acts; philosophically considered, I desire to give a just and fair idea of the personality involved.

It is not Mr Church's idea to make money out of this institution—in fact, he proposes to do nothing more in this respect than he did with the former, and his neighbors so understand him. It is his earnest desire, however, and he goes to work practically to develop it, in order that, to the greatest extent of his ability and his means, he may provide a charity that is at once an evidence of his practical forethought, and of his insight into the best means of promoting the happiness of his kind. The chief end he has in view is to provide a home for invalids where they may be cared for by disinterested and skilful physicians, according to a rational system—this and this alone—thereby saving as many as possible from the wiles of incompetent and unscrupulous practitioners, who depend less upon the drugs they use than upon their ability to play upon the weaknesses and credulity of their patients. The physicians in charge of the medical department of the institution are Dr W. H. Maxon and his wife Dr Hattie Maxon, both of whom are well known in their profession in the east.

The sanitarium building stands on high ground, at the corner of Mariposa and N streets, one block from the court house, and commands a clear and charming view of all the city and its garden-like environment. It is an imposing structure of tasteful design, covering a surface of one hundred and fifty feet square and rising four stories in height, constructed altogether of brick, and containing upwards of two hundred rooms, with ample closets. Surmounting each corner stands a circular dome, devised for both ornament and use. The edifice is finished outside and inside in a pleasing and substantial style, according to the approved fashion in this class of architecture, no expense being spared to make it lasting and a thing of beauty as well. One of the prime considerations in a home of invalids being ventilation, this feature was carefully provided for, every device being furnished to insure the entrance and exit of pure air at uniform temperature into and out of each apartment. Throughout the building is illuminated by incandescent electric burners. An elevator, run by hydraulic power, renders travel from floor to floor easy and comfortable. Every precaution is taken against fire, and capacious tanks kept filled with water for discharge at a moment's warning are placed in the four domes referred to. The spacious dining-room on the first floor has a capacity to accommodate two hundred guests at one sitting. In the southwest corner of this floor is a large room fitted up as a gymnasium, and equipped with all the appliances required by the most recent experience in this department of hygiene. The surgical department is on this floor, which is further taken up with parlors, waiting, dressing, and bath rooms. The second story comprises forty-four rooms for guests, and besides a large auditorium or ássembly chamber, which is provided for the edification and amusement of the inmates of the home. The building is square, and its exterior is made all the more agreeable to the eye and more homelike by wide verandas running entirely around it at each story, and inviting patients into the open air and full sunlight. No expense or pains have been spared to make the building all that strength, beauty, or convenience requires. It involved a total outlay of about $100,000. This is another noble instance of Mr Church's generous spirit, and of his ability to anticipate such future needs as escape the attention of those who look only from one sunrise to another. In a few years the Church sanitarium will be duly appreciated by all.

Some pages back I referred to the thorough study made by Mr Church and the proficiency he acquired in the practice of farriery. I recur to it here as incidentally connected with his sanitive labors. As was his wont in all things, he went to the bottom in his researches and thinking with regard to the diseases of the horse. At Columbus, Georgia, being connected with stage stands, his opportunities for investigation were frequent and favorable. After he had made himself master of the knowledge which is essential to comprehend and treat the diseases of horses' feet, he thought it would be useful as well as interesting to take a step farther and study the physiology of the horse, with special reference to his food. This idea with him was the beginning of an evolution. In the fall of the year, owing to the effect of changing from old to new provender, he saw horses dying at the rate of about one a day. He began to look for the remote cause of this mortality. For a time he tried his art of healing in vain, because his diagnosis was superficial, but his inquiries brought him finally to an inspection of the horse in his unartificial or natural state, that is, before he is subjected to the control and uses of man. In this condition he found him sound and proud of his strength—free from all those ailments that civilization entails upon him and his master alike. Yet the horse is adapted for most of the uses to which he is put, and should not get sick if fairly treated and required to do only rational service; but the docile creature often falls sick and dies without manifest cause. He came to the conclusion that, except by reason of old age, a horse should not succumb under the ordinary work imposed upon him. This was perfectly clear; yet the magnificent animal in the prime of vigor does fall in harness mortally stricken. After groping about in the dark, his insight more or less dulled by prevalent opinion and usage, it became clear to him that the cause of most illness among horses is traceable to what they are given to eat. This brought him into the full light of a principle that is often flippantly stated but seldom appreciated, that the criterion of health is conformity with nature and nature's laws. Blood is the horse's life; that which makes his blood must be what his organism requires as food, or else disorder and death will result. A careful consideration of this fundamental fact carried him into the study of proper equine diet, and taught him that superficial treatment, as in the case of a venereal sore, is ineffectual and dangerous; that the sore is only a symptom, and that the cause must be determined and eradicated. Men, as a rule, live in a miserable unwholesome way, and the dumb brutes they control being helpless to assert their nature fall under the same pitiable regime. And the more he studied the horse, the more he became impressed with the realization that this animal's physical organization and that of man are substantially the same; that the general law of health is identical in both. He had a family and he found it necessary to employ physicians. The more he saw of them, the less confidence he had in their good faith as practitioners and their integrity as students of medicine; like most horse-doctors, the majority of physicians fail to comprehend the underlying principles of their profession, distress their patients with drugs blindly administered and live for their fees. Observation of their mistakes increased the sympathy he naturally felt for suffering humanity. He would profit by his observation first at home in his own family; he would study the subject of dietetics, bringing his own body under the influence of rational eating, then, if he were able later in life, he would come to the rescue of others. He was not long in convincing himself by study and observation that nearly all the ills that flesh is heir to come from improper diet. As in everything else which commanded his attention, in this also he was earnest, persistent, and enthusiastic. The panacea for which he looked he found in vegetarianism, the first known exponent of which doctrine was Pythagoras, one of the wisest of the Greeks. The flesh of animals he holds to be an abomination; and I must confess that though I am a meat-eater and doubtless shall continue to be carniverous as long as my ability to masticate holds good, I cannot listen to his argument in favor of a vegetable diet without feeling faith in it and admiration for him. After hearing him plead the cause of man's health and of dumb brutes slaughtered, meat can never again taste so sweet and harmless. Says he: "You can teach a horse to eat meat in certain forms, however disgusting it may be to him at first; so you can teach him to drink whisky. The monkey can be taught to eat meat, but you must starve him first. The boy's first cigar is a frightful ordeal, but his taste is gradually perverted and he becomes a slave to pipe or cigar. A morbid appetite is created; it must be appeased. To the extent made necessary by the artifice or rearrangement of the functions follows habit and the system suffers violence—a violence which nature resents sooner or later, in ways that are commonly observed, and, also, in ways so indirect that only the special student discovers them. The taste for meat is not natural to man ; it is acquired readily, however, because of his environment in infancy, and, doubtless, because of appetite vitiated by heredity. Still enough of the creator's impress remains to preserve in him a craving for such food as has always been regarded as pure, wholesome, and inoffensive. He is a complex organism ; his system made up of dependent organs. The earth yields organic food fit for the sustenance and health of each of these organs. He is of the dust of the earth, and from his original element his food should be obtained. Adam and Eve were bidden to take and eat. Their diet, comprising the fruits of a bountiful soil, and contemplating the destruction of no living creature, was typical of ours. Then such diet, and no one will deny it, whether he believes in holy writ or not, meant the fullness of human health, which is synonomous with happiness; and, if so, why not now? It is as abhorrent to reason to take it for granted that man is naturally a meat-eater, as that he is naturally a tobacco-chewer. His teeth do not indicate that he is ; the teeth of carniverous animals are pointed and sharp; man's teeth are made for grinding. The mouth of a meat-eating animal opens and shuts like the blades of scissors; a man's teeth are moved upon one another vertically or sidewise. There is no flesh-eating animal that sweats through the pores of the skin, or the intestines of which resemble those of man; all flesh-eating animals lap water with the tongue ; all such animals are built so as to catch and kill their prey, which they consume *in toto*, skin, hair, feet and all. Notice the cat with a mouse; she begins at its nose and finishes with the tail, so of the lion, panther, and tiger. And all those meat-cormorants emit a strong offensive odor;

but this is their nature, not man's. They are superior to him in this that they devour organic food which corresponds with their own organic structure. They require little brain nourishment and their prey furnishes but little; it gives them, however, in abundance, that which they most need, which is muscle. It is plain that the flesh-eating man feeds his muscle at the expense of his brain, in direct ratio as he imitates the beast of prey. What does such a habit lead to? I may answer that question generally in one word, animalism. The intellect, which should be supreme in man, becomes subordinate to the grosser senses; reason is subjugated to appetite. The passions are abnormally stimulated. Sexual development in children is premature and uncontrollable. It accounts for innumerable social evils; it is at the bottom of divorces; it is responsible for the skeleton in so many family closets; it makes life feverish, unhappy, and brief. Yet man ought to live a great many years. It is only by degrading the master's workmanship that he is cut down at a time when his career should be hardly more than begun. Study the various nationalities, in regard to the food they eat, say the French and Scotch, and remark their characteristics of health and stability of mind and morals. In the olden times men lived to be 900 years old, but you say the bible prescribes a meat diet. It does not. If rightly read the verses from the second to the seventh of the ninth chapter of Genesis contain a positive prohibition of the carniverous habit. In order to understand this passage, it must be read with spiritual appreciation. Meat-eating shortened men's lives in four centuries to 200 years, and David in his time, that is 1,600 years later, exclaimed: "Are not my days three score years and ten?" Now the average is scarcely thirty years. If we could improve our living as we have degraded it, continuously, we should have Methuselahs among us again. But as a man eats so he is; this truth is as old as man's reason is, but it is ever fresh in its importance. Of course I do not exemplify as I ought what I know to be for the best in this respect, but I endeavor to bring my life into accord with my convictions. In my sanitarium, my newspaper, and my health journal, I trust that I shall do a great deal of good in inducing the world, as far as I can reach it, to take a reasoning view of diet, which is life, and to practise it for its immediate benefits, and its improvement of the intellectual, moral, and social condition of the race. I verily believe that a radical change in diet would revolutionize the world. Perfect government, the philosophers say, is an ideal expression of man's intellectuality. Now, I hold that government is an organic whole, made up of as many organisms as it has citizens, who participate in the control—each citizen a government in himself, possessing the power and exercising the functions of making, interpreting, and executing a personal law. The lungs are composed of innumerable particles, each of which is itself a little lung; the liver is made up of little livers; the kidneys of little kidneys. The government is the people. If members of this government are in a natural state, that is, in harmony with themselves according to the laws of nature, they will be in harmony with one another, they will form a government of complete and positive unity. Perhaps the millenium will come before this Utopia can be realized, but every effort in this direction by means of self-control and individual ennoblement is certain progress towards a better civilization."

But on the important topic of the physical state of which he has given so much thought and has written so much about it will be well to quote again from two different articles contributed by him to the Fresno *Inquirer*. This is from the first:

"If a man's diet is composed of animal food then he becomes like the the animal he eats, and can never rise much above the character of the animal upon which he subsists. He may become a pugilist, but not an evangelist, poet, or philosopher. The minds that have swayed the world and upset kingdoms and established better thrones are those that have subsisted upon a better class of food, such as have had the greatest quantity of brain nourishment which can only be found in the cereals, grains, seeds, nuts, fruits, etc. All of these contain a concentration of the crude material of earth, which, if eaten as they should be eaten and as God organized them, in which state they are adapted to every organ of the human body, and in the right proportion, are calculated not only to promote a perfect physical body but a perfect brain as the seat of control in the body. If the fountain or brain from which the mind proceeds is perfect then the mind will also be perfect; for a sweet fountain cannot send forth bitter water, neither can a perfect brain send forth imperfect thoughts. The mind will be perfect according to the size and quality of the brain and will be in perfect harmony with nature. The brain will embrace as much knowledge as its size and capacity will admit. Mind or knowledge is great or small in proportion as the brain is great or small. If we improve the mind we must cleanse the fountain or brain from which the mind comes. A weak, unsupported brain will produce a weak mind.

"Our bodies are made up of fourteen distinct properties, and each organ of the body requires its distinctive property in the food we eat. Most of the cereals have the fourteen properties which make up the various organs of the body.

"You now ask what to eat, and how? First, get a normal appetite and then select from nature's laboratory whatever the appetite craves, but eat it just as God organized it. You can grind and pulverize it without bolting the life out of it, and then cook it to suit the palate. Select from nature's storehouse to suit your taste; if you think you are a carniverous animal then eat your meat as other carniverous animals do—head, hide, hair, hoofs, horns, bones, brains, and all. Then you have something in your stomach to feed not only your muscles but the brain, bones, hair, teeth, toes, and finger-nails—something to nourish every organ in your body; and there is no reason why you should not be as fat and sleek and nice as any other carniverous animal. But if you should decide that you are a herbivorous animal, then select your food from cereals, grains, fruits, nuts, berries. etc., and before ten years shall pass away it will bring your poor old rickety body with all its sickly organs into harmony with the physical laws of your nature and a vigorous mind will assume its rightful sovereignty on the throne of reason."

And again, even at the risk of repetition, in the cause of emphasis, I quote from the same publication:

"Food is one of the elements of the materia medica that should not be considered second to any; as a vast number of chronic diseases are wholy incurable, no matter how skillfully all other remedies may be applied without proper nutritives the patient dies. We trust that the time is not far distant when not only the people, but the medical faculty generally, will make the subject of diet and the proper method of cooking their principal study. It ought to be taught in all of our schools of learning, for there is more of health and happiness or disease and misery connected with our method of cooking and eating than people imagine.

"Human beings will never be in any exalted sense either good, happy, or healthy until they obtain that harmonious and healthful operation of all the functions of body and mind that constitute peace within. Such a condition can never be realized until a thorough and radical reform is brought about in the selection of food and the methods of cooking. It seems to me that there is something particularly elevating and refining in the contemplation of fruits and flowers, and in the cultivation of grains, roots, nuts, and cereals of all kinds for the purpose of drawing from the bosom of mother earth a pure and healthy sustenance. We must be excused for our opinion that the pictures of animals displayed in a common cook-book, covered over with lines and figures denoting the different parts of the carcass from which to choose the more or less precious morsel, have a brutalizing and degrading as well as sensualizing effect on humanity. Especially is this so on the easily impressed minds of the young. They should be led away from scenes and thoughts of blood and slaughter to subjects of botany, natural history, agriculture, horticulture, and the like. We trust that the time is not far distant when the foundation for a better development of the human race will be established, and that especially the young will be taught what they should eat and how it should be cooked as well as how they should eat it. The very trade of butchering and slaughtering animals for food has a tendency to brutalize the minds of those who are engaged in it. And certainly the cooking of a pig and placing it on the table whole, as is often done, has a demoralizing effect not only on the cook but most assuredly on those who take it into their stomachs. The young should be taught that the shedding of blood is a terrible thing, and there ought to be something very revolting about the idea of feasting on the flesh and blood of any portion of the animal creation. Think of Adam, as pure as the angels, dyeing his hands in the life-blood of creatures to which his maker had given the breath of life! Think of the redeemed coming to a millennial feast to destroy life, and eat the flesh of animals that held life as dear as they themselves held theirs."

There is another instance of Mr Church's activity which serves to distinguish him in his manner of thought and action. As intimated elsewhere, he does nothing by halves. The predominant idea of his life has been the reclamation of arid land by irrigation. He solved the problem by a struggle, in the first instance against the forces of brutish men and nature;

now the fight goes on in the realm of intellect in the courts, in which his efforts are aimed to thoroughly fix and broaden the fruits of his previous labor. Much of this kind of work remains to be done.

Some time ago he purchased the Fresno *Inquirer*, the controlling idea in which is to have a fit medium through which to keep constantly before the public the history, present status, and possibilities of irrigation, so that nothing of what has already been learned will be lost, but that the advantages acquired may be rendered more and more beneficial for all time to come. But he is a man of too much discretion and adaptability to try to maintain a paper on one idea exclusively, however valuable that idea may be, in a community of many different avocations and interests. Already he has shown by his management that he understands men and affairs well enough to know how to make a paper generally acceptable, and hence all the more useful in the promotion of the original and specific design in view. By great painstaking and discrimination in the selection of topics, and a rigid scrutiny of all matter before it is accepted for publication, the *Inquirer* manages to discuss in good form all that men think or do that is of value and interest to the public. In other words, his paper, which may be considered the organ of irrigation in the state, is a clean journal; nothing is admitted into it that could offend the sensibilities of a pure-minded woman or child, while at the same time ingenuity is exercised in presenting solid food in such a palatable way as to attract and take hold upon the mind of the reader, furnishing at once entertainment and instruction. In this, as in all his other undertakings, Mr Church addresses himself to the highest and best principles of human nature, feeling sure that a newspaper kept up to this wholesome standard will grow in power and influence, and must have a good effect as a factor in helping forward the civilization of the coast. He contributes with his own pen sound articles on various moral and economic questions, especially such as those already noted. His style is rugged, vigorous, and clear. But from specimens given, the reader may judge best for himself. All people in his community and elsewhere will be pleased if the *Inquirer* meets with that success to which it is entitled, both as an educator at home and abroad, and as a promoter of the material growth and wealth of Fresno county and the state of California. It is gratifying to know that under the new management the paper is already commended itself to popular support, and increased in patronage and circulation.

Mr Church was reared by Christian parents and in the Christian church. He united with the baptists, and remained with them two or three years, then becoming skeptical remained in that state, struggling to determine what are really the principles of christianity, and in 1873 became a member of the church of the seventh-day adventists, the doctrine of which he believes to be the true bible doctrine. Since that time he has been a zealous and consistent advocate of this faith. He is a man of intense nature, never parleying with evil, or hesitating to do battle for what he believes to be right.

I find in him a loyalty to conscience such as is too rare not to be noted; a sense of justice and honor most refined, and yet thoroughly practical. This virtue in him is not negative, confined to faith and profession, but is positive, manifesting itself in performance at whatever sacrifice to purse or spirit. I quote two instances in point, which, on account of their extraordinary nature, I have taken the pains to look into and verify, not that they are not in accord with the man's character and disposition as otherwise exemplified, but because, being so striking an exception to the ordinary rule of conduct, they should not be mentioned unless with assurance. From E. Jacobs, already mentioned, a merchant at Centreville, he bought goods to the amount of several hundred dollars. As an offset, and considerably more, he gave Jacobs the privilege of diverting water from his ditch to run a flour-mill, also a large pile of lumber to build a bridge across a stream to the mill, the agreement being that due credit should be given for these items at a fair valuation. Both men, with this understanding, let their claims against each go to profit and loss. But some four or five years after the transaction, Jacobs having sold out to Louis Einstein of Fresno, the latter revived the old account and demanded payment. Church tried to explain the matter, but Einstein, assuming his claim to be just, would not listen, became angry and brought suit; but as collection was barred by the statute of limitation, the case went against him. For many years after this the litigants passed and repassed on the streets nearly every day without recognizing each other. At last, however, Church called on Einstein and said: "I have come to talk with you—to finish a conversation that I began with you fifteen years ago. Will you hear me out? We used to be friendly, and I want to make everything right." "All right," answered Einstein. Then followed a full explanation on the part of Church, who concluded by saying: "I was wrong, and I wanted to tell you so before. I should not have allowed my lawyers to coerce me into pleading the statute of limitation after I had given you to understand that this plea should not be set up. I insist that you make out your bill with interest." A reasonable bill was presented and paid, and the two men have been perfect friends ever since.

Before Mr Church left Napa he had a small farm regarding the title to which there was some dispute; but, according to the best legal advice he could obtain, the counterclaim to the property was fraudulent and would not hold in law. He sold the farm, and about a year afterward proceedings were instituted against the purchaser, who was ousted, his title being declared insufficient and void. Mr Church had moved away and had no knowledge of these facts, but, twenty years after making the sale he happened to be in Oakland one day, when the man to whom he had sold the farm, P. Engelbretson, came up to him, made himself known and told the story of his troubles—how he had lost his property and had been struggling ever since to make a livelihood. Mr Church, after finding by investigation that the man's statement was correct, wrote to him from Fresno that if he would come there he would refund him the money paid for the farm, $600, with liberal interest up to date from the time he had paid it; or else he would give him twenty acres of land, advising him, however, to accept the latter proposition, which he did. But he was without a dollar and could not come. Mr Church paid his fare down and showed him the land, with which he was well pleased; furnished him with a wagon and team, dug a well for him, put in a pump, gave fruit-trees and seeds, built him a house and barn and furnished him means for necessaries until he could get a start—in a word, provided him with a complete equipment with which he began a successful and happy career as a farmer with a deed to land worth fully $3,000. Engelbretson was delighted with the unexpected and magnanimous treatment he received; so much so that he was not willing that the knowledge of such a noble deed should be restricted to himself, and in a card in the local press of Fresno he published the facts of this extraordinary case as I have stated them. And so he settles all his accounts while on earth, not waiting to have them cancelled hereafter, as some good men do.

The last instalment, $100,000, was due to him on the sale of his canal, in June 1889. When it was proffered according to written agreement, he declined to receive it, as it was not his intention to accept this money until the last cloud upon the company's rights and privileges had been removed, so that they could be absolutely certain of being undisturbed in the property purchased from him. This had been his verbal assurance and it should be verified. The shadows all passed away in time, and the money was paid with entire satisfaction to all concerned.

Mr Church has thought a great deal on the problem of the life to come as well as of the present life of man. Concentrating every energy upon this study, as upon all else that engages his attention, he has mastered the theology of the bible and of human sense, to the extent that it is susceptible of comprehension by the finite mind. He is one of those original independent minds which not only think for themselves but for great masses of mankind; one of that class of leading and governing spirits which formulate doctrines and establish new denominations in religion, new schools in philosophy and new institutions for improvement in the practical things of life. But he is not a revolutionist, nor is he egotistical or puffed up; hence he does not go contrary to accepted usage or thought unless it be irreconcilable with revelation and logic. In other words he never differs from others for the sake of differing. This is his disposition and he believes the cause of truth is to be subserved by avoiding needless antagonisms and that by sympathetic consideration of others, and by yielding to them as far as we can do so consistently, we are more able to bring them to our way of thinking. His theory is not to drive but to lead. As has been shown already he is not a man to be idle; his thoughts he puts into action. His whole life, religious and industrial, has been one of thought followed directly by action—and all in the line of goodwill and good service to others. In the latter part of 1889, having for so many years studiously and earnestly thought, written, and conversed on the vital question of religion, he wrought out in his mind what may be described as the only plan of salvation. This exalted theme he only is able to comprehend in its essence who has acquired an insight into the bible, which is intuitional—who sees with spiritual eyes into the mysteries of the holy writ. The scholar, let him be ever so bright and intellectual, who studies revealed religion as a matter of mere history, or strives to interpret the text literally, is as one who having eyes sees not, and having ears hears not. He, too, must be born again. Mr Church having explored all the dark places of spiritualism and sounded all the depths of scepticism and having returned with ardent love to divine truth—that is, having studied the life now and the life to come with a strength, penetration, and patience that few possess, felt the need of presenting the all important matter so that it would reach the greatest possible number and appeal to them with the greatest possible force, reaching the mind through the eye. Therefore he devised a chart which I may say is the sum total of the bible in epitome. This is saying a great deal, but not too much ; it abounds in texts every one of which is alive. In fact it illustrates God's whole will as communicated to man, and points every moral by a lesson from experience.

The chart is a series of speaking pictures, showing in a way at once philosophical, theological, and practical man's entrance upon and his exit from this temporal stage, which, however, is but a slight part of his being, as is made manifest in the plan. It is a most original and must be an extremely effective instrumentality in the teaching of religion for various evident reasons; first of all it is true, and as such commends itself to all. Even if the bible be thrown out of consideration altogether there is enough left of the chart to interest and help every thinking person who prizes his health or who realizes that good morals and pure christianity were taught together by the same great teacher. It shows the value of self-control and the contemplation of a noble standard as against yielding to lusts which not only pollute the soul but destroy the body as well. It is not sectarian, it is universal in its words and pictures of encouragement and warning, and hence wide enough and deep enough in vital lessons to reach the minds and hearts of men in the highest as well as the lowest states of society; and there is no creed or church but will be helped forward by the wholesome truth in the agreeable manner in which the chart presents it. It fills the mind of the most learned and technical, while it captivates and enlightens illiterate men and women, and picture-loving boys and girls.

The chart, three feet long by two and one-half feet wide, is divided into four parts: The first, at the bottom of the study, is the division in which man appears in a state of nature. His history begins here with his infancy, showing his physical condition at birth. He is surrounded by all manner of evil. His father, a drunkard, offering liquor to his mother, who accepts and drinks it; other vices that hasten death are graphically portrayed near at hand. Thus is the child "conceived in sin and brought forth in iniquity." This being travels on the broad road to destruction until he is brought to a realization of his sin and wretchedness, and then he is overwhelmed with the hopelessness of his life and his total inability to help himself. But the cross looms up before him. His only recourse is to accept the promises offered to him in the bible—the only medium of salvation being repentance and remission of sins. Remission can be secured only by confession and reparation. The least sin unconfessed will keep a man out of the kingdom of grace, which is the second division of the chart. "Behold the Lord's hand is not shortened, that it cannot save; neither is his ear heavy, that it cannot hear; but your iniquities have separated between you and your God, and your sins have hid his face from you, that he will not hear." This is the condition of the natural man. What then must he do? Christ's last words to his apostles were: "Preach repentance and remission." This means first conviction of sin, then conversion or a turning around, then repentance, then confession, then complete reparation for all sins committed from years of accountability to the present time, and then baptism. In contradistinction from the usually accepted interpretation of scripture on this point, Mr Church places the completion of all these processes or measures of discipline occurring in the order named as anterior to the practice of christianity, all of which work is performed in the embryo state, before the child of God is born, and baptism is what severs the embrogenic cord and places the new-born babe in the kingdom of grace. He holds that in all these reformatory states the child cannot talk to the father nor the father to the child, as is erroneously taught, for the reason just given, that father and son, until baptism, have no relations whatever, and do not know each other any more than the father and child know each other before the actual birth of the former. Spiritual education begins only when the child has been born again, that is, the embryo man starts out in life poisoned by inherited and inevitable sin. He matures in body and vice simultaneously. This is his physical and natural growth. The older he becomes and the more hardened, the more difficult it is for him to become as a little child again. This is the struggle on which the remainder of his present life depends and an immeasurable future. Having fought the good fight, however, by the help of the redeemer, this ally will never desert him, and his course must ever be onward and upward. There are two individualities in one, the noble and the base, the spiritual and the bodily. By reason of original sin, animality is the controlling force until after redemption: intellectuality reasons correctly, determines wisely; but the dominion of lust is above all. We hear it said: "The flesh is weak." Rather the opposite of this is the truth; for the body is too often master, and the mind the slave. It is not that we choose the evil way deliberately, for every son of

Adam knows that the wages of sin is death. Man's life is double, comprising his present temporal existence and his future endless being; the human organism is dual and created for perfection in each of these states. It is not reasonable, as most religious teachers claim, that the beginning and end of earthly existence is to prepare for an endless future. True, man's supreme duty is to so prepare himself: this is the highest earthly function. But his temporal perfection and consequent temporal happiness is likewise a supreme consideration; nor does proper enjoyment here below interfere with preparation for eternity. This earthly tabernacle is the shrine of the immortal soul: its lights should therefore be kept bright and shining not only against the coming of the bridegroom but for itself; it is fashioned for joy and virtue. This "harp of a thousand strings," with its natural aspirations, its normal demands for fruition, keeps wonderfully in tune considering the neglect to which it is subjected. The fleshly mind is the cause and disease is the result of man's demoralization. Otherwise he would be seen as the express image of the creator. But there is a never-ending struggle between the intellectual and carnal, and the latter conquers always in the end, until there is a new birth, with which comes purity and strength. However valiant and stout we may be by fits and starts, we must suffer defeat ultimately in every engagement so long as we do not look beyond ourselves for succor. But, the divine help, according to promise, is abundant and never failing, from the moment that the supplicant, having prostrated himself at the foot of the cross pleads "Lord have mercy on me a miserable sinner," turns squarely around, obtains remission of his sins, makes actual reparation for the wrongs he has done to his fellow-men and goes forward and upward on the straight and narrow road with faith as a lamp to his feet. The baptized child, thus made spiritual, falls into Christ's arms as the physical child into its mother's arms. In this kingdom the child is filled with love, and begins, with Christ as teacher and leader, an upward course. He adds to faith, first virtue, then knowledge, then temperance, then patience, then godliness, then brotherly kindness, and last charity, which is the bond of perfectness. On this inclined ladder of virtues, leading up to the crown of all in charity, the convert has now arrived at perfection of body, soul and spirit, and can do those things that Christ did, and, according to his own word, "greater things than these shall ye do." We have him arrived now in the kingdom of holiness. Here are the truths of the bible actually exemplified in the lives and characters of believers who have grown into spiritual harmony with the master. This is the region of pure christianity, in which the doing of good and the giving of glory to the father of all characterize act and thought. In the morning of the resurrection the redeemed will receive a crown of life and a robe of righteousness and be transported to the kingdom of glory (the division next above the holiness kingdom), so shall they ever be with the Lord, passing up to his presence through a door which it is promised shall ever remain wide open to admit those who have conquered the lust, the flesh, and the devil. And thus will all the redeemed become his subjects, and the seat of his kingdom eventually be this earth, after it has passed through a process of cleansing by fire. "Behold the day cometh that shall burn as an oven, and all the proud, yea all that do wickedly, shall be stubble, and the day that cometh shall burn them up, saith the Lord of hosts; that it shall leave them neither root nor branch." "But unto you that fear my name shall the sun of righteousness arise with healing in his wings, and ye shall go forth and grow up as calves of the stall." The kingdom of glory or the most holy place is that which is called in Revelation the New Jerusalem or the City of God, and referred to by Christ as follows: "In my father's house there are many mansions; if it were not so, I would have told you. I go to prepare a place for you, and if I go and prepare a place for you, I will come again and receive you unto myself, that where I am ye shall be there also." The central figure as seen on the chart in this kingdom is the tree of life, the leaves of which were for the healing of the nations. Under the tree flows the river of life, a crystal stream of pure water proceeding from the throne of God, the tree and the river representing the blood and the body of Christ.

Thus is given only a meager idea of the contents, the character or the form of the remarkable devise of Mr Church, which he proposes to produce in such form as to make it as widely useful as possible. He has copyrighted it, and those who are curious to read and study it may write to him at Fresno, California, and obtain the chart with an excellent key, presenting its contents in brief. It serves to confirm what the facts of Mr Church's life have already shown, that his love for his fellow-men is ever prompting him to original and difficult things—such things as but for him would not be done, might never be thought of—and that his ingenuity is equal to all the extraordinary demands which he makes upon it. And what is peculiar in him is that he is restless from the moment a useful suggestion comes to him until he has put it in form to do the widest and best service for the present and the future welfare of his neighbors.

Physically Mr Church is not a man of large stature. His height is five feet eight inches, but he is slight in frame and weighs only 145 pounds. He has not an ounce of superfluous flesh on his bones. His frame shows negation of self. You see in it the material enginery and index of highly wrought intellectuality and zealous temper. As is ordinarily the case with men who think much, he stoops slightly at the shoulders. Dark gray eyes, deep set under heavy brows are the speaking feature of his face, indicating plainly his tremendous will and tenacity. His hair and beard, originally dark brown, are now gray. His complexion is swarthy, bronzed by exposure to the elements. His forehead is square and broad; his mouth emphasizes the inflexible determination expressed in his eyes. In conversation he is always earnest; his clear, fervid speech would of itself individualize the man. He never jokes; his long struggle against vicious men, the tension of mind and muscle—almost a fixed habit—render him a little severe in manner, sarcastic, and distrustful of recent acquaintances. But he is a shrewd judge of men, and no one has a higher regard for true manhood than he. In the sense in which the term is ordinarily used he is not an educated man—that is, not technically so. Yet he is educated—a graduate among men from the only school in which real life is learned; one of that class of men who, assimilating by observation, study, and friction—by the genius of self-help—create and control by the force of nature in them; who get what information they need in their business from books, but who, according to Bacon, possess a wisdom that is outside of and above books. He has been one of the most liberal patrons of all charitable and civilizing institutions.

When he believes, he believes positively; when he works, he does so with every energy focused upon the thing to be done. Hence, if the man and his methods be understood, no one will marvel at the magnitude of his achievements. He possesses at once the genius of judgment and the genius of will, which, when combined, make men of action—men of creation, state-builders, organizers, controllers—men who give tone and impetus to their community; whose impress upon their times is so deep that it can never be effaced. The history of their times cannot be appreciated without a full knowledge of them. The present value of what he has done and encouraged others to do is apparent; the future utility of his labors can only be measured by the growth of the state among the builders of which he has stood out so conspicuously and so wholesomely. His work at the foundation is as roots of the industrial tree which go down deep and strong into the earth—a fruitful force for all time.

CHAPTER X.

AGRICULTURE—CALIFORNIA.

The Three Epochs of California Agriculture—The Industry under Mission Rule—Gold-diggers as Farmers—Improvement of Breeds—The Dairy—Transition from Grazing to Grain—Honey—Exhaustion of Soil—Machinery—Climate and Conditions—Canals and Ditches—Water Rights—Rainfalls—Cotton—Silk—Tobacco—Sugar—Tea—Transition from Grain to Fruit—The Age of Horticulture, of the Orange, the Olive, and the Vine.

To agriculture in California may be assigned successive periods, those of grass, grain, and fruit. The last two were under the auspices of the Anglo-Saxon race, and the first during the reign of the Hispano-Americans, while prior to either the aborigines enjoyed in a measure the natural yield of all the products. A too indulgent climate failed to stimulate the energy of its children, and finding themselves sufficiently provided with seeds, roots, and berries, they rested content. Even the villagers along the Santa Bárbara channel showed no disposition to till the fertile soil, notwithstanding the commendable example of the Rio Colorado cave-dwellers.

Agriculture was, therefore, not introduced until the entry of the Spaniards, under the auspices of missionaries, and less for self-support at first than as a means of attracting neophytes. Attention was primarily directed to maize, as the staple cereal of Mexico, but the greater adaptibility of the soil for wheat gave this the leading place, so that it constituted more than half of the total crop. In 1821 the missions produced 180,000 bushels of grain; the average yield, however, fell below 100,000 bushels. Vegetables were also raised, chiefly leguminous, and orchards sprang up at each mission, particularly of pears and semi-tropic fruits, oranges, figs, and olives. Most of these were introduced from Lower California during the first few years of mission rule, and included the two principal vine stocks, the sweet Los Angeles and the lighter Sonoma grape, the former predominating throughout the state until recent times. The fruit was of inferior quality, however, owing to the prevailing indifference and neglect of the Mexicans, whose rude culture was marked also by the rarity of ornamental gardens and shade trees.

The flattering success attending the friars in their efforts to raise grain and fruits showed the government the desirability of colonization, and San José was founded in 1777, the first of a series of pueblos established by Mexican immigrants. Here irrigation was applied on a more extended scale, which encouraged the padres to more imposing works, with long and massive aqueducts and dams. But Mexicans are poor material for founding and developing intelligent and progressive commonwealths. It was difficult to persuade the indolent race to remove to so distant a home in the first place, and those who did come were checked in their aspirations by being cut off from foreign markets, and restricted within the narrow commercial limits of the Spanish colonies. Added to this was the feeling of degradation connected with work, which was delegated to a low race of Indians, and as a result the little labor required was left to the neophytes, or to the wild natives, hired or impressed, through whose mismanagement the crops sometimes amounted to but little as compared with what might have been accomplished. The crudest methods continued in use. Ploughs were often nothing more than crooked sticks; threshing was performed by the feet of mares, and wagons consisted of rude frames rolled upon disks of wood. The government took little pains to develop industries or encourage improvements.

The first attempt at agriculture on the part of foreigners was made by the Russians above San Francisco, but in a manner so desultory as to prove of little value. Their establishment finally passed into the hands of Captain Sutter, who in the forties carried on in the valley of the Sacramento the largest farming operations in the province. His presence and enterprise encouraged Americans to open a number of ranchos above him on the river and around the bay, chiefly for cattle, but also with a proportion of grain-fields and orchards.

Then came the gold excitement, with its attendant influx of people. Flour and meat were imported in abundance, but vegetables were extremely scarce, although indispensable to the preservation of health among miners confined mainly to a salt meat diet. This gave an impulse to gardening, followed by the planting of barley, which was well suited to the dry and sandy soil. As the placer mines declined, a digger now and then abandoned the pick for the hoe and plough, and by 1854 the farmers succeeded in rendering California independent as to staple provisions, creating thereby a revolution which entailed on commerce a series of disasters.

Soon afterward it was discovered that the large interior valleys, hitherto considered unfit for agriculture, were particularly well adapted for wheat, owing to the productiveness of the soil and the ease with which it could be cultivated. Thus within a few years the state attained a high rank among the wheat-producing countries of the world. The frequency of droughts, with a consequent failure of crops, here gave to agriculture a speculative character, but such drawbacks proved no permanent hindrance.

To stock-raising, however, the excessive drought of 1862–4 proved a severe blow. The pastoral industries of entire counties in the south were almost swept away, to be succeeded by compulsory tillage and subdivision of ranges. With the growing strength of the farmers, no-fence laws were enacted, which still further reduced cattle-farming to a subordinate position, with greater attention to sheep and to superior breeds of animals, for which it would pay to raise hay, grain, and alfalfa. The neglect so far in cultivating pastures has been due not alone to the wide range open for stock, but to the mildness of the winters, which renders reserve fodder needless, and to the dryness of the summer, which kills the favorite grasses. Lucerne, or alfalfa, with its deep roots, thrives in many parts without irrigation. Bunch grass is proof against drought, and the wild oat, which forms the most widespread and striking pasture in the state, yields on an average a ton to the acre.

The unrestrained freedom allowed to livestock in colonial days gave rise to numerous herds of wild cattle and horses in the interior valleys, and also to a general deterioration in quality and a reduction in weight. These scrub cattle, as they were termed, were noted for their long, thin legs and slender, spreading horns on high-raised heads; the sheep for their short, coarse wool. This condition was rapidly changed by the Americans, who crossed the breed with their heavier and stronger stock.

The high prices that prevailed during the first decade of mining stimulated the industry to such an extent that the cattle alone numbered over 2,000,000 head before the droughts of 1862–4. The mistrust which followed was strengthened by the decline in mining, and the growing interest in and value of land for the cereals. Those who continued stock-raising adopted more careful methods, apportioning cattle to the pastures, partly in response to the new fence laws, and found compensation in the larger and finer yield of beef and milk, and in diminished losses and expenses. The coarse Spanish stock has almost disappeared, and farmers in general encourage the improvement by keeping a few head of superior breed as a useful and profitable adjunct to their business.

A prominent branch in this connection is dairying, which did not exist before American times, and is chiefly confined to the coast pastures, moistened by the ocean winds. The census of 1880 reports 210,000 milch cows, with a yield of 14,000,000 pounds of butter and one-fifth as much of cheese. The business is naturally influenced by the large towns. Thus, San Francisco county leads in milk production; Marin county stands at the head with butter, and is preëminently a dairy region, followed by Sacramento county, favored by its rich swamp lands. Santa Clara ranks first for cheese, and several counties northward derive their principal revenue from dairy farming.

The best eastern and European varieties are sought for breeding purposes, and of the 800,000 head of cattle remaining in 1880—only thirty-three per cent of the number two decades before—nearly one-third were pure American stock, fully one-half were nearly so, and less than four per cent were Mexican.

One effect of the great drought was to call attention to sheep-farming, for which the country is exceptionally well suited. Sheep are adapted to the mountain pastures, and the mild climate is so favorable to their growth that their development here in two years is equal to that of three years in the eastern states. Their natural increase, little obstructed by disease, is fully eighty per cent, and their yield of wool averaged in 1880 over seven pounds from two clippings, as against four pounds for the United States. This showing is largely due to the introduction by Americans of Spanish merinos, which have almost wholly displaced the low-grade Spanish-Mexican stock, and assisted to increase the flocks to about 6,000,000, or nearly sixfold within two decades. For the decade ending with 1890 the average wool product was about 35,000,000 pounds, the largest clip being in 1876, when it was 56,000,000 pounds.

The expectations formed at one time as to the profits to be made by raising Angora and Cashmere goats have not been realized. Nevertheless, such herds are numerous. The keeping of swine is restricted by dry pastures and fence laws, and the warm climate is an obstacle to packing; but the tules present favorable localities along the San Joaquin and Sacramento, and irrigation is opening wider fields.

The Spanish horse introduced from Mexico is of inferior breed, small in size, but of great endurance. The larger, finer, and more tractable American stock, though less healthy, now predominates, as better fitted for carriage, cart, and plough, and a considerable proportion of the 300,000 head now in California consists of well-bred animals, for there is a general predilection for showy steeds among farmers and rich country residents. The California racehorse has of late years gained for the state a high reputation as a favorable breeding-ground for swift and enduring animals.

Working oxen are condemned as too slow in this progressive land, and the mule is regarded with little favor; but his value is nevertheless recognized for rough and heavy work, especially in pack-trains.

The honey-bee did not exist here until it was introduced from the eastern states in 1852 by W. A. Buckley. It now flourishes along the southern streams, and many a hive produces 200 pounds of honey in a season. For 1890 the total product of the state was 6,000,000 to 7,000,000 pounds.

The gambling spirit of the flush times, the ready acquisition of wealth, and the high prices of goods and labor, gave a speculative stamp to farming, with operations on a large scale and with superficial methods, as the use of gang-ploughs for scratching the surface, and the frequent recourse to ready yet exhausting volunteer crops. They also stimulated to experiments and improvements, which have led to many admirable results, and as the invention of labor-saving implements, in multiform gang-ploughs, and combined headers and harvesters, which are here more widely adopted than elsewhere; the low pruning and other improvements in vineyards and orchards; the vast irrigation systems, and the breeding of fine horses and sheep. Few countries possess so varied a cultivation and a farming community of higher general intelligence and enterprise.

Favored by lightness of soil and the absence of sod, stones, and shrubs, ploughing in the valleys can be performed for as little as forty cents per acre, the gang-ploughs cutting from four to eight inches deep and covering from four to a dozen acres daily. On a small farm with heavy soil the expense would be about sixfold. The effect of such favorable conditions has been to render farmers only the more careless; exhausting the soil, without rest, rotation, or fertilization, and neglecting all deep ploughing. Some attach sower and harrow to the plough and complete the work in one operation. Steam-ploughs have not found favor in California.

The scarcity of rain during summer and autumn leaves harvesters undisturbed. Grain and many root and fruit crops may be left untouched for weeks after maturity without loss, thus giving the farmer ample time for reaping. Grain may be collected in stacks to await the thresher, or the thresher may be fed at the time by the header, which, sweeping over from twenty to sixty acres in a day, delivers the grain to the wagons. Of late has been introduced a combined header and thresher, which delivers the grain in sacks along its path, ready for the granary. The grain does not require curing or drying. Thus may be saved the expense of binding, stacking, and storing, together with much costly labor, indispensable elsewhere. Several California inventions have reduced the cost of harvesting fully fifty per cent. With the aid of such machinery and conditions, one man is able in this state to attend to nearly ten times as many acres as the average for the United States, and twenty times the average in England. The frequency of volunteer crops is one favorable feature; another is the ready and inexpensive system of manuring by merely burning the high stubble left by headers, or turning livestock into the harvested fields.

Such operations imply large farms. The census of 1880 placed the average size at 462 acres, among 36,000 farms, or one for every twenty-four persons, while the average for the union was one for every dozen. Among the reasons must be considered the prevalence of mining, the position of the state as a commercial and industrial centre for the coast, the speculative farming which requires the service of a large proportion among the inhabitants, and the old Mexican land laws which favored the acquisition of huge tracts, many of them controlling still others by securing the scanty supply of water. The new horticultural era is rapidly effecting a change by a subdivision of grants under the pressure of taxes.

There is little valuable land unoccupied, and this is held at high prices, which are not extravagant, however, in view of the favorable climate and conditions, the usually unobstructed ground and the immense possibilities of the soil. Two-thirds of the 16,600,000 acres of farm-lands were improved in 1880, yielding products to the value of $60,000,000, or $700 for every one of the 79,000 agricultural workers, while the average yield throughout the union was only $300 for each laborer, and this result was obtained with farm implements to the value of only eighty cents per acre.

Compared with the other states of the union, California is a summer-land, situated in one of the most favored zones on the globe, the attraction for an ever-increasing influx of tourists in search of rest and enjoyment; of invalids in quest of health, and of homes cool in summer and warm in winter; of immigrants, attracted by the fame of vineyards, orchards, and orange groves. It offers, indeed, a perennial spring, with ever-blooming fields beneath an Italian sky. The soil is light, yet rich, with no obstructions in the valleys to immediate and easy operations. There are no cold winters to bury the ground for months, little frost, rare storms, and insignificant blights. Nature grants extra opportunities, as shown in the perpetual green, in the rapid growth of trees and animals, which attain maturity at little more than half the age assigned in the eastern states, and in the luxuriant yield and large size of the fruits, vegetables, and other products. The climate permits harvesting to be left to the convenience of the farmer, and many fruits may be dried in the sun for preservation, like the standing grain crop. The no-fence laws confer a boon of no small value since farming supplanted stock-raising and mining as leading industry. Thus safeguards and natural advantages lighten toil and expense, supply more wants and luxuries, and encourage the formation of beautiful and comfortable homes and prosperous horticultural colonies.

The disadvantages are comparatively slight, though the summer wind is at times withering, and ground-squirrels, gophers, and rabbits abound in some districts. The dry summers and occasional droughts, while forbidding in some respects, are in a measure offset by their advantages for harvesting and in checking weeds. Floods at times injure the river border, but the formerly attendant evil of mining débris, deposited upon the land during inundations, has been checked by legislation, and land monopoly is likewise declining. These and other reforms are effected as the interests concerned acquire prominence. Thus, the growth of wheat-raising in the timberless valleys, and the decline of stock-raising, relieved the farmers from the necessity of maintaining fences. With the subdivision of tracts into small holdings, as required by the new era, will come also more careful cultivation.

Dryness once rendered uninhabitable many sections in the south, but this is rapidly being overcome by irrigation, which is, moreover, stimulated by the irregular and scanty distribution of rain. It not only reclaims otherwise valueless regions, as instanced by the now rich and populous Fresno district, but assures and augments crops in general, fertilizes and renovates the soil, destroys pests by flooding, and enables the farmer to select his own time for planting, and to raise several crops in one season, economizing time and opportunity. It also provides canals for cheap transportation, breeding-ponds for fish, and hydraulic power for farm operations. It increases largely the value of land, and is especially advantageous for colonies, binding them in closer bonds.

Most of the water is supplied through canals and ditches from the rivers, but artesian wells provide large sections. Even with the aid of the latter some districts, like the eastern slope of San Joaquin valley, can obtain water for perhaps not over seventy per cent of the soil, while the western slope suffers from still greater scarcity. In the southern counties the Mexicans introduced the system immediately after entering the country, although making slow progress. In the gold region it was fostered by the construction of mining ditches, and in 1871 the growth of settlements induced capitalists to turn their attention in this direction. Soon afterward was begun the largest canal in the state, the San Joaquin and King river, which by 1878 had been extended for seventy miles. Several other ditches were undertaken, their owners profiting by the costly and somewhat defective plan of the first, and a few years later nearly 200,000 acres were under irrigation in San Joaquin valley alone.

Government aid is called for by many districts, but the matter should undoubtedly be left to private enterprise, or to coöperative effort in the counties concerned, under the supervision of the authorities, in order to adapt the system and its resources to all districts, and prevent exaction and undue discrimination. In this connection has arisen the question of water right: whether the water in the stream from which canals are supplied belongs to riparian land-holders, according to the laws of England usually prevailing in the United States, or to the state at large for the general benefit. There are manifest reasons why a common law, hastily adopted from a country so dissimilar in climate and conditions to California, should not be adopted when it imperils the vital interests of some of the richest districts of the state. Nature clearly designs the rain for the land where it falls, and if under topographic peculiarities it drains into springs or streams upon adjoining property, it should be conceded to the public, as in the case of navigable streams, which on account of their general value are free to all. The prior appropriation for mining ditches so long recognized, and the rejection of eastern fence laws, give precedents for rulings in harmony with the exceptional circumstances of the country.

If properly distributed a rainfall of a dozen inches is ample for wheat crops, but owing to irregular distribution less than an average of sixteen inches is sure to result in some failures. Severe droughts are rare, however, occurring about once in thirteen years. That of 1862–4 revolutionized agricultural interests in several counties, and the one of 1876–7 inflicted a loss of some $20,000,000 in cattle and crops.

In California the conformation of the surface, subdivided as it is into narrow strips by several ranges, with cross ridges and lateral openings, gives rise to a variety of climates and soils. The warm ocean currents and almost daily sea breezes modify the temperature even in the interior valleys, and impart to the coast a most equable temperature. In the north, where no heated interior basins exist to draw the cooling sea air, the prevailing wind is northwesterly, laden with summer showers. Below Cape Mendocino a change occurs. The rains, decreasing with every degree of latitude, from between 43 and 73 inches in the north to 9 and 12 in the south, depend upon southwesterly currents, which are very rare between May and October, leaving a dry season of nearly six months, but prevail throughout the winter, with a precipitation that produces not infrequent floods. A corresponding though somewhat higher gradation is observed along the interior valley strip, with an increase during the ascent of the Sierra slope, crowned by snows that feed the streams in summer. This peculiarity of distribution regulates the agricultural system, with its busy winter season and early and convenient harvest-time.

Climate predominates over geologic formation in determining the agricultural value of districts, especially in the south. The Sierra Nevada exercises, nevertheless, a marked influence, with its elevated slope and vast drainage area. Its long line of foothills forms a kind of upland plain, with a breadth in the north and centre of 50 to 70 miles, and with an elevation of 500 to 4,000 feet, but narrowing in the south within a border of bare and abrupt bluffs. The western side of the great valley has only a narrow strip of slope. From these ranges have come the clayey soil of the Sacramento and the sandy deposits of the San Joaquin. The former is very productive without irrigation, and the bottom lands covered by mining débris will in time recover from this blight. In San Joaquin the need for irrigation increases, and becomes indispensable farther to the south, where intermittent streams run through a sandy surface, marked by terrace formations of varying fertility. Along the coast the soil grows heavier as the ocean moisture increases. Thermal belts occur in different districts, free from frost, which present special advantages for horticulture, and a large area of swamp land affords an opportunity for science and capital to unite in reclamation projects.

Grain-growing supplanted stock-raising in the sixties as the leading industry of the state, and cereals will probably remain a staple product, notwithstanding the increase of orchards and vineyards, favored as they are by easy tillage and the best of harvest conditions. Barley has been gaining additional markets under the growing demand for brewing and feeding purposes, and favored by the sandy soil and dry climate, the crop increasing to more than 12,000,000 bushels by 1880. The above conditions are not favorable to oats, and of this cereal only about 1,500,000 bushels were produced, chiefly in the well-watered moister counties of the north and central coast region. The growth of maize is also limited, but it is raised in the south with the aid of irrigation.

Wheat was the leading cereal even in colonial days, and deservedly so, for it is well adapted to the soil, and possessed of exceptionally glutinous qualities, together with a dryness which gives it a special value for admixture with English grades, and permits it to endure the long sea-voyage without special care or preparation. The yield increased to over 30,000,000 bushels in the early eighties, stimulated at first by easy cultivation, and by the facilities for ready shipment, and subsequently by the reputation acquired for the grain. The lessened yield of recent years is due to lower prices, careless farming, and the greater attractions of other products. The cereal will nevertheless maintain its position by the side of mining and horticulture as one of the leading sources for California's prosperity and development.

Vegetables were not grown to any considerable extent until after the revival in agriculture under American auspices, when producers were favored by the demand from scurvy-threatened miners and by high prices. Production was subsequently sustained by the enormous yield, their growth lasting throughout the year for most varieties, and by their excellent quality, with a size and weight greatly in excess of eastern products, potatoes frequently weighing several pounds, and squashes over three hundred pounds, The rapidity of growth affects the flavor of many descriptions; others are widely appreciated, however, and find distant markets with aid of canneries. Their culture has fallen mainly into the hands of the Italians and Chinese, whose windmills for irrigation form a striking feature in the outskirts of towns.

The speculative Californian has tried his prolific soil with almost every variety of promising plants, but has met with many disappointments, due greatly to haste and inexperience, but also to unfavorable local conditions, and to the lack of markets in a new country. Rice failed to answer expectations; yet the swamp land under reclamation may later present inducements. Cotton was tried for a time by the missionaries; subsequently planters from the southern states brought their experience to bear, and in the middle of the sixties the state gave an impulse to its culture by offering premiums; but so far the production is confined to a few hundred acres, although with promise of a revival with improved methods and quality of fibre. Flax, once raised by Mexican colonists, is now planted, in common with castor beans, for its oil. The semi-tropic ramie and jute are also attracting some attention.

The most auspicious fibre-culture is connected with silk, and was started in 1853 by L. Prevost of San José, samples receiving such flattering reports from France as to induce the state to come forward with a reckless offer of premiums. Speculators hastened to avail themselves of this opportunity by planting trees, and producing inferior silk by a makeshift process, until they threatened to swamp the state treasury. The legislature hastened to reform the pernicious act, and the bubble burst upon the speculators. Other circumstances added to the depression. It had been shown, however, that the state presents favorable conditions for sericulture, in its equable climate, favoring the rapid growth of trees with superior leaves, and permitting a great saving in the feeding of silk-worms; in double crops, if required, and in a large yield of silk. A society accordingly revived the business for the special benefit of women, and by selecting superior trees and annual cocoons they are winning a reputation for their products, which are, moreover, protected by the high tariff on foreign goods.

A similar fiasco took place in tobacco. The dry climate had been found detrimental to its quality, but early in the seventies J. D. Culp invented a process for curing the leaf which was claimed to be economic as well as improving to the flavor. A company undertook to carry out the idea without due preliminary experiments. The result proved unsatisfactory, and reckless mismanagement assisted to bring about failure and discouragement, so that production fell from 1,250,000 pounds in 1874 to less than 80,000 five years later.

Model farmers continue to make experiments, and will in time reveal additional sources for profit. Hops thrive well in a climate free from summer rains and fogs, with ready means for curing. The mustard plant, a pest in many quarters, has become valued for its spice as well as its oil. After unremunerative attempts to extract sugar from grapes, melons, sorghum, and other materials, the sugar-beet was found to answer, by virtue of its superior sweetness, and its manufacture promises to expand.

The pastoral era has gone, and grain-growing is yielding the first rank among California industries to horticulture, with its attendant condition of small holdings, as best adapted to general prosperity, and to the elevation of agricultural labor, which in this instance falls to a relatively superior class. California promises to become the France of North America.

Few countries can display so great a variety of excellent fruits, some of which, like the grape and pear, seem to have found here their best development, while others, as the apricot, olive, and fig, never thrive so well elsewhere in the United States. The Spaniards began their cultivation in pastoral days, with seeds and slips from the peninsula, but exposed the already deteriorated quality to further neglect. United States immigrants planted orchards in the Sacramento valley, and miners spread them along the gold belt. In the sixties came a grape excitement, only to subside under inexperience, with a return to orchards. Apples predominated, in response to Anglo-Saxon taste, and the different climates of lowland and foothill permitted many acceptable varieties to be raised, although the average was inferior in flavor and for keeping qualities. Among the superior pears the Bartlett has achieved a wide reputation. The delicious and prolific apricot is likewise in demand, and the prune is gaining favor, but the peach is less appreciated, in common with certain varieties of cherries.

Fruit-growing has also experienced its vicissitudes. The destruction occasioned by frost and other causes to the orangeries of Florida turned attention to California, where citrus fruits flourish south of latitude thirty-five degrees, and in the Sacramento valley. Early in the eighties the fame of her orange groves spread far and wide, and proved the main attraction for the remarkable influx of tourists and immigrants, and the initial point for the attendant increase in real estate values and in general development. Irrigation is assuring the crop, and increased railroad facilities are opening for it the eastern markets.

Figs are receiving attention in the same zone, and Smyrna and white Adriatic are being introduced to improve upon the prevailing black Turkey variety. Among nuts, almonds promise well only in certain districts; in others they bloom without yielding fruit. The olive is a product for which the dry and otherwise comparatively worthless hill lands of the south seem well suited, although the valleys are better.

The grape stands preëminent, however, as the most valuable product of the state. The abortive excitement to which it gave rise in the early sixties had the effect of rousing the legislature to appoint a commission for studying its culture and introducing cuttings from European stocks, superior to the so-called mission grape, a deteriorated south Spanish stock brought by the first friars from the peninsula. The task was entrusted to A. Haraszthy, a native of the wine districts of Hungary, whose efforts in behalf of the industry have procured for him deservedly the appellation of the father of viniculture. The varieties selected by him were distributed among experienced viticulturists, and proved the source for the red Zinfandel, the light white Riesling, and other popular as well as choice brands. The consequent revival of general interest in this direction was checked by phylloxera and other troubles, but only for a time. With the present decade the culture has gained firm foothold, and inflowing land-tillers and unfolding colonies are fast spreading attractive vineyards over valleys and foothills throughout the state. The south still retains the preponderance, reënforced by the upper counties of the San Joaquin valley, while the essentially viticultural regions of Sonoma and Napa are supplemented by the counties of the Sacramento valley.

With nearly double the amount of sugar contained in European grapes, the California wines are as a whole strong and lacking in delicacy of flavor, the heavier southern resembling those of Spain, Hungary, and Greece, while the central and northern varieties strive for German and French standards. The defect is greatly due to the lowland soil, with irrigation necessary in the south and elsewhere advisable; but now the poorer hill lands are becoming recognized as the best, though yielding less and involving more work. The average yield is high, and may be placed at seven pounds for each of the 800 vines on the acre, while from a ton of grapes 130 gallons of wine may be obtained. A portion of the fruit is gathered for table use; another is converted into brandy and a third is reserved for raisins. In 1881 the export of wine reached 3,000,000 gallons, consuming about one-third of the yield, and the demand is rapidly increasing, through the enterprise of our wine merchants. The California brands are acquiring recognition, based on their own merit, and on the state's reputation as one of the best grape-regions in the world. This reputation is sustained by a number of exceptional advantages, such as sure crops, subject to comparatively slight afflictions; a yield nearly double that of European vineyards; a soil adapted to a great variety of grapes, and a stalk which after the third year becomes self-supporting, thus saving much labor and risk from wind, drought and frost.

These advantages apply largely to fruit in general, for orchards begin to bear at half the age, as compared with those of eastern states, and the yield is about double, the fruit being of large size and as a rule of excellent flavor. Picking never ceases, for the citrus season covers the months when other orchards are not in bearing. Strawberries are in the market all the year in the south. Pests are few and mild in their ravages, particularly under the remedial measures favored by the climate, in irrigation and low-training of trees and shrubs, which promote maturity and protect soil and plants alike. Fruit may also be left upon the tree long after maturity. The inferior flavor of certain varieties is being improved under superior methods and elimination. Of late years the railways are offering special facilities for transporting fresh fruit eastward, and canneries assist in opening wide markets. During the period of 1875–81 the production of the latter increased from 4,500,000 to 11,000,000 cans, or 27,500 pounds. Raisins, figs, and prunes may be safely and cheaply dried in the sun.

Judging by the ornamental gardens which form so attractive a feature of California towns, the taste for horticulture is widespread, in striking contrast to the indifference during colonial times. The climate fosters it, by admitting a large variety of plants, forcing them rapidly to maturity, and keeping most of them green throughout the winter, gay with brilliant if not very fragrant flowers. The streets and many a highway are profusely adorned with trees, which relieve the landscape and provide a grateful shade. The planting of forests has been undertaken to some extent, for fuel fences and wind-breaks, and efforts on a large scale are urged to modify the objectionable features of the interior valleys and promote greater humidity.

The state has been remiss in many directions where a moderate outlay has produced good results, leaving the people to establish their own agricultural societies, with exhibitions under their auspices. The first fair is attributed to the efforts of T. Shelton,who in November 1851 displayed a collection of agricultural and mineral specimens at San Francisco, and hastened the formation in 1854 of the State Agricultural society. The latter received assistance from the authorities in order to encourage others, and to make it the head of the county and district associations which sprang up throughout the country, with experimental aims, exhibits, and premiums.

These organizations gave rise to other general and particular bodies, such as conventions of stock-raisers, fruit and wheat growers, and sericulturists, with the view of promoting certain objects, or of combining against antagonistic interests, as fence restrictions, traffic monopoly, and the middlemen. An association for considering all such evils, especially the last two, exists in the national grange, which the farmers of California began to join in great numbers in 1873. They opened a special business agency to support and sell produce, and to buy implements and other necessaries direct from importers and manufacturers, and promoted the establishment of farmers' banks, warehouses, and coöperative stores in different towns, and even the construction of railways; all aiming to defeat extortion and save commissions and speculators' profits, while benefiting the entire community by forcing middlemen to greater compliance.

The monopoly of land is being shorn of its proportion by equitable taxation, and by the attractions presented in the rise of land values under the present horticultural development. A promising feature in this connection is the formation of colonies, differing from the early Spanish efforts in that they are mainly dependent on fruit-raising, and coöperative in certain directions, with a view to assure success by means of costly irrigation works and certain adjuncts, such as canneries, presses, and mills. These common interests with commercial and educational branches, continue to form a beneficent feature in the community. The prototype of these modern colonies was Anaheim, founded on a site bought and laid out in common, under the supervision of an experienced viticulturist, and when duly started, divided among the shareholders. Encouraged by its success others followed the example, and owners of large ranchos began to subdivide them, often adding improvements in the shape of ditches, trees, and vines, and hoping to profit additionally by the building of a town. These ventures contributed to land excitements, which, starting in the southern orange region, spread northward, increasing values sometimes ten fold in different directions, and giving fresh impulse to the formation of horticultural homesteads of from ten to thirty acres. They converted the wilderness into gardens and laid the foundations for the most prosperous of agricultural conditions.

To sum up the agricultural condition of California, under which phrase is included stock-raising, horticulture, viticulture, irrigation, and other kindred branches, it may be stated that in 1890 the state ranked first in the union as to diversity of products, first in the production of wine and of several descriptions of fruit, and among the first in yield and export of wheat. In that year, one by no means specially favorable to our farming interests, the total value of cereal, hay, and root crops was estimated at more than $65,000,000, including 25,000,000 centals of wheat and 16,000,000 bushels of barley. Of wine the product was 18,000-000 gallons; of raisins, 2,000,000 boxes; of prunes, 15,000,000 pounds; of oranges, 4,000 car-loads; with shipments of green and dried fruits to eastern markets of 150,000,000 pounds.

A feature in the harvest year of 1890 was the delay and difficulty in moving the grain crops. Notwithstanding the enormous receipts at tide-water, an immense quantity was stacked on the farms, or by the side of railroad tracks, where for weeks it awaited transportation. Add to this excessive freights by land and sea, the latter caused by a scarcity of tonnage, and the margin of profit was so inconsiderable as to discourage the smaller class of farmers. On the larger wheat farms the cost of production has been greatly decreased by the use of steam-power in planting and harvesting, effecting a saving of fifty per cent on the methods formerly prevailing, when crops were sown and garnered by horse and hand power. Except on a large scale, and with the most improved appliances, wheat-farming is no longer profitable in California, and as the result, many small farms have been abandoned or converted to other uses. With prices ranging, as in recent years, from $1.25 to $1.35 per cental, and with freights and labor at existing rates, it has been found impossible to compete with the grain-growers of Russia and Hindostan, with wages at from one fourth to one tenth those here demanded. In occasional seasons, however, the values of wheat may be remunerative, as in 1890, when there was a partial failure in the European harvest, and in that of England, our most reliable customer, almost a total failure.

Our barley and corn crops are largely consumed at home, though with considerable shipments of the former to eastern breweries. Of oats and rye the product is insignificant, as compared with other cereals. Among vegetables the bean is one of the most profitable, netting on an average from $50 to $75 an acre, and with the advantage of quick and sure returns. For 1890 the yield amounted to some 50,000 tons, of which about 30,000, mainly of the lima variety, were credited to Ventura county. Shipments east were on a liberal scale, as were those of other vegetables, and especially of potatoes, the latter estimated at 13,000 tons. So large was the potato crop that, in occasional instances, it was said to have repaid the first cost of the land. In some localities a specialty was made of raising winter vegetables for consumption in the east, shipping them at a season of the year when eastern markets are entirely bare. Of hay the crop was from 1,500,000 to 2,000,000 tons, largely of alfalfa, which, with the aid of labor-saving appliances, can now be produced at a cost, inclusive of cutting, curing, and stacking, of $1 a ton. A feature of the year was the increase in the sugar-beet crop to 8,000 or 10,000 tons, and according to some authorities as much as 15,000 tons. At this date there were three beet sugar-mills in operation, the one at Chino, in San Bernardino county, being the largest in the United States.

But it is as a fruit-growing region that California has attracted most attention within recent years, for here are profitably raised nearly all the fruits that grow in temperate and semi-tropical climes. Among orchard fruits we have the apple, pear, and quince, the plum and cherry, the peach and nectarine, with berries and currants of every description. Of semi-tropical fruits we have the fig and date, the orange, lime, and lemon. Of grapes there is almost every variety that grows on the face of the earth, including both wine and raisin grapes. Of nuts there are several native and imported species, as the almond, filbert, and chestnut, the French and English walnut. Here also fruit-trees come earlier into bearing, bear longer, bear larger, more richly flavored, and more abundant crops than elsewhere in the United States. So plentiful is the yield that trees must be heavily pruned, and relieved at times of one half their load, to secure the choicest products of which they are capable. Another advantage is the warm, protracted, rainless summer, fostering the growth and maturity of fruits, and affording the cheapest and best conditions for drying and curing.

It was not until long after shipments by rail to eastern markets became practicable that fruit-raising was classed as among our leading industries. For many years its growth was retarded and is still retarded by excessive freights, with a charge per car-load from San Francisco to New York of more than $500 in 1880 and of about $300 in 1890, while in the former year such fruits as early pears and peaches were shipped by passenger train at the rate of $1,000 the car-load. Thus while in 1880 wheat was forwarded by the Southern Pacific at $13 a ton from San Francisco to New Orleans, fruit to New York, by the Central Union system must pay, by freight train more than $50 and by passenger train more than $100 a ton. In 1890 the rate by the former was still nearly $30 a ton, or over a cent and a third per pound. Add to this the delay in transit, for which the lines east of Ogden are mainly responsible, causing much of the fruit to be landed in an unmarketable condition, and it will be seen that fruit-growing is not the royal road to wealth that some would have us imagine.

But notwithstanding all drawbacks the unfolding of this industry has been one of the most remarkable features in the recent annals of the state. In 1871 shipments of fresh fruits to eastern markets were 1,832,000. For the next ten years they increased but slowly and with many fluctuations, until in 1881 they amounted to 7,248,000 pounds. For 1890 they may be stated, according to the lowest estimate, at 75,000,000 pounds. Of dried fruits the first consignments were made in 1875, and consisted of some 548,000 pounds. In 1880 they were only 412,000 pounds, and for 1890 were computed at from 30,000-000 to 40,000,000 pounds. From 182,000 pounds in 1872, shipments of canned fruit increased to 6,707-000 in 1880, to 56,000,000 in 1887, and to a still larger aggregate in 1890. Of dried fruits the principal articles were, in the order named, raisins, peaches, prunes, apricots, and grapes; of canned fruits, apricots, peaches, and pears.

The general condition of the fruit trade in 1890 may be judged from the operations of the California fruit union, by which were handled in that year nearly two thirds of the green deciduous fruit shipments of the state. For the season beginning with May and ending with November the union shipped to eastern markets 1,373 car-loads, of which 828 were to Chicago, 136 to New York, 116 to Boston, and the remainder to points as far northward as St Paul and as far southward as New Orleans. It is worthy of note that only two of these car-loads were forwarded from San Francisco, San José taking the lead with 290 car-loads; followed by Vacaville with 254; Sacramento, 196; Newcastle, 138; and Winters, 109; all others being less than 100 car-loads. The gross sales amounted to $1,501,023; the freights to $620,688, and commissions, cartage, and storage to $158,438, or a total of $779,126, leaving as net returns $721,897, to be increased by some $50,000 through shipments yet to hear from. The season was regarded as in the main a prosperous one, except for cherries and grapes, both of which arrived in poor condition, while the eastern crop of the latter was unusually heavy. With these exceptions shippers, of whom a large proportion were also fruit-growers, were fairly satisfied, though paying to the railroad companies nearly one half of the total value of their consignments. Complaint was made of the scarcity of cars, which at times were not to be had at any price, and of the want of method and punctuality in this department of the railroad service. But for the lack of better and cheaper facilities for transportation, the prospects of our horticulturists are of the brightest, with the world for their market and with a demand for their products that is practically unlimited. Certain it is that when once the fruit reaches its destination there is no delay in disposing of it, for most of it is sold at auction and with the quickest possible despatch. A car-load arriving overnight is in the auction-room by nine in the morning; before ten it is sold; before noon it is removed, and on the same day a check is mailed for the proceeds.

During the five seasons ending with 1890, the average net returns from green fruits shipped to eastern markets were somewhat over two cents a pound, and with cheaper freights and improved methods of handling, these returns could be largely increased. For 1888 it was estimated that the fruits and wines of California produced from 250,000 acres a value of $26,000,000, while the cereal yield from 2,550,000 acres was $50,000,000, or at the rate of $104 an acre for the former, against less than $20 for the latter. Such figures require no comment.

It was through the excellence of her vineyards that California first began to attract attention as a fruit-growing region; for here, it was found, could be raised every known variety of grape, whether for table use, for raisins, or for wine. By Arpad Haraszthy, whose father was one of the founders and promoters of this industry, is thus briefly related the story of California viticulture: "Although the grape-vine was planted by the mission fathers as early as 1770, but little progress was made in this direction until 1858. As one of the commissioners appointed by Governor Downey in 1861, my father, Agaston Haraszthy, visited the principal viticultural regions of Europe, returning with much valuable information, and two hundred thousand cuttings and rooted vines of every description found in Europe, Asia Minor, Persia, and Egypt. In 1870 the production of wine and table grapes was greater than the demand, and by 1875 many vineyards had either been abandoned or uprooted. Some four or five years later, however, the demand again increased, which, with small crops, caused an advance in the price of wine, and thus the beginning of what may really be termed the viticultural industry of California.

"In March 1880 the legislature created the board of viticulture, and since that date we have been advancing more rapidly than was ever before anticipated, in all branches of the business. When the board was organized, there were about 35,000 acres of vines planted in this state, of which about 20 per cent were of imported and the remainder of old mission varieties. In 1888 it was estimated that there were not less than 150,000 acres in vines, and that fully 90 per cent of the wine-grapes consisted of the best grades of foreign varieties obtained from the principal wine countries of the world."

To the making of wine in California there is no practical limit, for wine is consumed the world over, while production is restricted to certain areas. And yet this industry has been subject to many drawbacks and fluctuations, caused by inexperience, by local prejudice, and the want of other than local markets. It was not until recently that those who have passed through what has been termed "the genesis of vinous production," who have labored and planted and pruned for more than a quarter of a century, could find any adequate return for their weary years of toil and endeavor. As late as 1880 mission grapes were mainly used for wine-making purposes, producing at best only a heavy, coarse, and flavorless vintage. At that date men would not believe that any grapes could be so good as those introduced by the padres, and only small quantities of wine were made from choicer varieties. But with the organization of the board of viticulture came a change in the condition of affairs, and to the efforts of that board is largely due the present status of this industry. The vintage of 1881 was stated at 12,000,000 gallons, decreasing to 8,000,000 in 1883, doubling itself in the following year, and in the five succeeding years averaging from 15,000,000 to 16,000,000 gallons, with a yield, as I have said, for 1890 of about 18,000,000 gallons, though according to some estimates placed as low as 14,000,000. It was not until 1889 that the demand began to keep pace with the supply, through the steady increase of eastern and foreign requirements. Thus in occasional seasons prices were extremely low, a portion of the vintage of 1886, for instance, selling, for the cheaper grades, at 13 to 14 cents per gallon, with an average, up to 1890, of less than 20 cents a gallon.

At the latter date the area in wine-grape and raisin vineyards was estimated at more than 200,000 acres, and the invested capital at $75,000,000. Of wine-grapes the crop for 1890 was the largest gathered as yet from the vineyards of California, but with prices so low that several thousands of tons were dried, passing into consumption among the cheaper grades of raisins. Of such fruit hundreds of car-loads were shipped to eastern markets, realizing from $16 to $20 a ton, or nearly double the rates offered by makers of wine. For the common mission grape $7 or $8 a ton may be considered an average price, with about double that rate for the Zinfandel variety; for the Riesling and Burgundy, $17 to $20; and for the Cabernet and Petit Pinot, $25 to $30.

From 2,817,000 gallons in 1882, the exports of California wine rose at the rate of a few hundred thousand gallons a year to 4,257,000 gallons in 1885. Then came a more rapid increase, to 5,192,000 gallons in 1886, to 6,442,000 in 1887, and in 1890 to about

11,500,000 gallons. Add to this at least 5,000,000 gallons for consumption on the Pacific coast, and it will be seen that our supply of home-made wines is little if at all in excess of the demand. As yet there is no considerable export to foreign countries, except perhaps to France, where California wines are flavored to suit the popular taste, and then perhaps returned to us at three or four fold cost as choice imported brands.

Such for the decade ending with 1890 was the agricultural and commercial condition of this industry. When untrammelled by foolish prohibitive enactments, our wines are gradually finding favor in eastern markets, and in California, even among the richer classes, they have largely superseded imported descriptions. Whether it is better for mankind to drink wine or water it is not my purpose here to discuss, but certain it is that the majority of men have a preference for the former beverage. In countries where wine is the only liquor in use, as among the Latin races of southern Europe, the vice of drunkenness is almost unknown, though cheap, sound wines are used by persons of all ages and conditions in life, almost from the cradle to the grave. Such wines are here made in abundance, in addition to the more expensive varieties, for the vinous slop manufactured in earlier years can no longer find a market.

The growth of viticulture has been attended by a corresponding increase in the production of brandy, which of late years has assumed a relative importance never before attained. By the commissioner of internal revenue the production of California brandy was stated, for the fiscal year ending June 30, 1865, at 20,415 gallons; increasing for 1870 to 286,753 gallons, for 1880 to 238,928, and for 1890 to 1,072,957. For the three years ending with 1890 the quantity remained almost stationary, and for the present it was thought that for the cheaper qualities the limit of production had been reached, not for want of a market, but of a larger supply of material at prices such as distillers could afford to pay. Hence the inducement to manufacture better grades, such as that for which in 1889 a gold medal was awarded by the Paris exposition. In France the destruction wrought by the phylloxera caused a large decrease in the manufacture of brandies, the supply of which was insufficient even for the home demand. Hence a considerable foreign as well as eastern demand on California distilleries, of which about 150 were registered in September 1891.

Raisins were first exported from California in 1874, in which year 10 boxes, each of 20 pounds, were shipped to New York by way of experiment. The result appears to have been satisfactory, for since that date exports have steadily increased, until in 1890 they were little short of 2,000,000 boxes. Meanwhile from 9,000 boxes in the former year the product had risen to 2,050,000, and according to some estimates to more than 2,300,000 boxes in the latter. Raisins are grown in many portions of the state, from San Diego as far north as Shasta county, Fresno taking the lead with nearly 1,000,000 boxes. A hopeful feature is the steadily increasing popularity of the California as compared with the Malaga product, our only real competitor. While the Spanish raisin, shipped to this coast in the form of London layers, is a large, thin-skinned, and finely flavored fruit, it has been largely superseded by California varieties, which now supply about one half the total demand of the United States, our only market; for in Europe, apart from Great Britain, there is no large consumption of raisins, and to overcome British prejudice is a task beyond our California fruit-growers. This result is the more remarkable when we consider the difference in the price of labor between the two countries, amounting probably to seventy-five per cent in favor of the Spanish viticulturist. Moreover, the duty of two and a half cents a pound imposed by our tariff is largely offset by the higher freight charge of one and three quarter cents a pound from San Francisco to New York, against one third of a cent from Spanish ports. These disadvantages are at present more than counteracted by the superior processes here obtaining of curing, handling, and packing the crop, though it would seem that in time the Spaniards must learn our more economical methods. Meanwhile this industry is in most excellent condition, with prices at remunerative rates, and as was remarked by a prominent Malaga firm, "nowhere in the world is there such promise for the future of raisin-growing as in California."

For oranges the season of 1890–1 was marked by unusual prosperity, with shipments to the east of more than 3,000 car-loads and at prices that left a fair margin of profit. An encouraging feature is, that the demand keeps pace with our rapidly increasing crops, and with no apparent tendency to lower prices. Another consideration was the partial failure of the Louisiana and Florida crops, caused it was said by the change of climatic conditions in the southern states. In portions of Florida, where were once the largest and most profitable groves, young trees could no longer be grown, and in Louisiana what were formerly the most productive of her citrus plantations had entirely ceased to bear. While Los Angeles, San Bernardino, and San Diego counties remained, as before, the largest producers, the cultivation of the orange was also extended to northern California, with shipments to eastern points direct from Oroville. Lemons were attracting more attention, now that the proper methods of handling the fruit were understood.

The olive, next to the grape perhaps the oldest of cultivated fruits, one grown in Italy long before Romulus traced with his plough the limits of the imperial city, thrives well on the soil of California, requiring only warmth and drainage, with less of moisture than is needed for other varieties. Though raised to the best advantage on the slopes of hills with a southern exposure, it will thrive almost anywhere, except in mountain altitudes. Says one of our most prominent horticulturists: "I have growing on my place olive-trees in the black adobe, in deep bottom land, in sandy land made from the wash of the mountains, in stony hillsides and adobe hillsides, and in table-lands where the subsoil is a dark clay probably twenty feet deep, and so far as I have known, there is no great difference in the bearing of these trees, or in the quality of the oil produced. From 10 or 12 pounds of olives a large bottle of oil is obtained, and as the yield is about 120 pounds to the tree at seven years from the cuttings, this would seem to be a profitable industry; the more so as the lifetime of a tree is said to exceed two centuries."

Of plums at least two thirds of the yield are converted into prunes, the crop for 1889 being estimated at 15,000,000 pounds, the French being the favorite variety. The fig comes early into bearing, producing a fair crop in its third or fourth year, and sometimes two or three crops annually. The peach is also a favorite, on account of its early and copious fruitage, and its adaptability for shipment, canning, and drying. The Bartlett pear still maintains its preëminence as one of the leading fruits both for export and home consumption. With its richness of flavor and aroma it commands a higher price in the eastern states than the product of their own orchards. For the smaller fruits, such as cannot be exported, the demand is limited, and except for the earlier and choicer varieties their culture is unprofitable.

That fruit-raising will in the main continue to be a prosperous industry, and more so in the future than in the past, is almost beyond a peradventure. For markets we have the western states, where many of our fruits cannot be raised, and where population is increasing at the rate of millions a year. We have the eastern states, the rigor of whose climate forbids the production of the orange, fig, and olive, the apricot, and the grape. California is destined to be the orchard of the United States, and all that is needed for this industry is a stricter attention to methods of cultivation, and the cheaper freights that cannot fail to attend the promised competition in overland traffic.

Closely connected with fruit-growing is the subject of irrigation, on which the welfare of that industry, in common with other branches of agriculture, largely depends. Only a small percentage of the wheat-fields of California have been or probably ever will be irrigated; but for her orchards, with their more valuable products, irrigation is in the southern portion of the state a necessity, especially for the citrus fruits. In central and northern California orchards and vineyards have not, as a rule, been irrigated, except for the smaller fruits. To foster the growth and fructification of trees, it is found that water need only be placed on the land three or four times a year, beginning perhaps with June and ending with September. By running the water about once a month in small ditches between the rows of trees, and then, to prevent too rapid evaporation, stirring up the ground with cultivators, the land remains friable, and trees mature quickly and in healthy condition.

In a report of the United States senate commission, it was estimated that up to 1889 about 3,300,000 acres had been placed under irrigation in California, at a cost of $10,375,000. To this area at least 500,000 acres have been added since that date, largely in San Bernardino and San Diego counties. In the former was the largest reclamation work undertaken within recent years, the Bear Valley reservoir, which when in full operation would add more than 250,000 acres to the agricultural area of that region, with a storage capacity of 105,420,000,000 gallons, or more than the ten largest reservoirs in the United States. Others were in Antelope valley, an intra-mountain district in Los Angeles county, before considered irreclaimable, but where, through the building of reservoirs and distributing-ditches, a large area has been brought under cultivation in grain and fruit. In Fresno, Tulare, and Kern counties considerable progress has also been made, and in northern California, especially in Lassen, Sierra, and Shasta counties, irrigation enterprises are under way through storage basins and artesian wells.

As to the benefits of irrigation it may be said that there has been no more powerful factor in adding to the wealth and population of the state. On irrigated tracts the returns are from two to ten fold more than are obtained from lands where there is no artificial watering, so that on an average ten acres of the former are equal in productive capacity to fifty of the latter. Taking the five counties where irrigation has been most largely developed, we find that between 1870 and 1890 the population of Los Angeles increased from 15,000 to 101,000; of Tulare from 4,500 to 85,000; of San Diego from 5,000 to 35,000; of Fresno from 6,300 to 32,000; and of San Bernardino from 4,000 to 25,000. Meanwhile, according to the returns of the state board of equalization, the taxable wealth of Los Angeles increased from $7,000,000 to $67,000,000; of Tulare from $3,500,000 to $21,700,000; of San Diego from $2,500,000 to $27,700,000; of Fresno from $3,200,000 to $35,500,000; and of San Bernardino from $1,200,000 to $22,500,000. It is probable that at least three fourths of this increase is due to irrigation, and to fruit-growing, which, without irrigation, would have been impossible on its present scale. While for the ten years ending with 1890 the population of California increased by 40 per cent, in thirteen counties whose principal industries were mining, stock-raising, and the lumber business there was a decrease of inhabitants, the loss being more than outbalanced by districts where farming under irrigation was the leading pursuit.

It is now becoming generally understood that the farmer who avails himself of irrigation has the seasons and elements practically under his control. With irrigation the products which he raises from his land are rendered almost as secure as the products of the manufacturer, and with better assurance of a profitable market. The soil is well supplied with fertilizing elements; sunshine is not wanting to quicken vegetation into life; and water, enriched by nourishing properties drawn from earth and atmosphere, combines to eliminate from agriculture the element of uncertainty. Thus it is that lands originally purchased for $2 an acre, as in the Anaheim colony, are now worth more than $2,000, and that tracts deemed so worthless that none would pay the taxes, will now support a family in comfort on each ten or twenty-acre subdivision.

An encouraging feature within recent years has been the gradual withdrawal of irrigation enterprises from the control of monopolists, due largely to the Wright irrigation law, passed in March 1887, and amended in 1889 and 1891. By this measure a system of organization is permitted, whereby, on lands that can be irrigated from a common source, a district may be formed for this purpose, resembling somewhat a municipal corporation. When estimates have been made of the cost of the work, the population of such sections may vote an issue of bonds, constituting a first lien on all the property to be benefited, interest and redemption to be provided for by taxation, as with city and county bonds. Up to June 1891 thirty-two districts had been organized under this law, and bonds issued to the amount of $11,200,000, of which more than one third were disposed of, the proceeds being devoted to the acquisition of water rights, the construction of works, and the purchase of works already constructed.

A few years ago the area under irrigation in California was limited to a few small sections in the southern portion of the state. It has since been extended almost throughout the land from the borders of Mexico to the boundary line of Oregon. Even in districts where irrigation was deemed unnecessary it has gradually been adopted, and in every quarter new enterprises are being inaugurated, redeeming arid lands from their barrenness and increasing the productiveness of fertile tracts. Certain it is that, throughout the coast, the greatest advancement has been made in irrigated regions, multiplying population by scores of thousands and wealth by scores of millions. Since the time when the Mormons constructed at Salt Lake city the first irrigating-ditch on the Pacific slope, until to-day we have reservoirs and canals that water their millions of acres, the progress made in this direction partakes indeed of the marvellous; and yet what has already been accomplished is but a foretaste of what is to come, with the more scientific and economic methods that must follow in the track of experience.

O. J. Baldwin

CHAPTER XI

LIFE OF ELIAS JACKSON BALDWIN.

California Enterprise—Genealogy—Birth—Early Career—Journey across the Plains—First Ventures in San Francisco—Sagacity and Enterprise—Real Estate and Stock Operations—The Bank of California—The Baldwin Hotel and Theatre—The Santa Anita Estate—Summer Resort at Lake Tahoe—Horse-breeding—The Bear Valley Rancho—A Man of Many Interests—Appearance, Characteristics, and Opinions

That one man in his time plays many parts was never spoken more truly than of our California argonauts, and of those whom for several years afterward the gold excitement lured to these western shores. In each of these years came a throng of adventurers from the eastern states, many times larger in number than the entire white population of the coast before the American conquest. With them came also thousands of Europeans of the better class, most of them in sympathy, if not in political allegiance, with the country where they cast in their lot. For a time the mines gave to all a generous welcome; but it was not until their diminished yield forced men to betake themselves to other pursuits that California entered on an era of real and substantial prosperity. Then it was that our gold-seekers engaged in farming, manufacturing, and commercial enterprises in such varied forms and with such startling results as have never been witnessed in eastern or old-world communities. To them is due the inception of numberless undertakings which, in all these departments, have placed the golden state at the head of the sisterhood, giving to her the control, not only of the largest mines, but in proportion to age and population, of the largest farms and factories, and the largest commercial and financial interests in any section of the union. And yet the men by whom these marvels were wrought came here, for the most part, with little means or experience, with no special aptitude for the task that awaited them, or none of which they were conscious, depending only on their own right hand and the faculties with which nature had gifted them.

On an August day of 1853 there arrived at Placerville, in charge of a party of immigrants, a tall and sturdy youth of some twenty-five summers, who, after five months' travel across plain and mountain, and with many a narrow escape from marauding Indians, had made his way westward from a frontier Wisconsin settlement. His name was Elias Jackson Baldwin, presently to be known as Lucky Baldwin. Why that term has been applied to him more than to other successful men will presently be explained; and whether it has been deservedly applied to one whose efforts have raised him from comparative obscurity to a foremost rank among the financiers, the land-owners, the stock-raisers, the fruit-growers, the viniculturists of the west, the reader will judge for himself from the narrative that is laid before him. If to make good use of opportunities, and at times to create them, is to be lucky, then has he been a lucky man; if to be gifted with such qualities as strength of will, persistence, energy, forethought, adaptability, is to be lucky, then does he surely owe his prosperity to that which some men call fortune, some fate, and others providence. But though providence may work in men, it does not work instead of them. As Iago well remarks, "It is ourselves that makes us this or that," and if to other aid than his own Mr Baldwin's success is due, I find no trace of it among the varied incidents of his life. But let us hear from the beginning the ancestry, parentage, and career of one who has been so long identified with all that is best worth preserving in the annals of the Pacific coast.

As far back at least as the days of Ethelbald, king of Mercia, the old Saxon adjective *bald*, or as in English bold, has been used as a prefix or suffix in many a patronymic. Taken in conjunction with win, from *winnan* to fight or to gain, we have a name which, when applied to him who forms the subject of our study, is deemed by those who are acquainted with his character and career by no means inappropriate.

Among the first of this name to settle in America was the great-great-grandfather of Elias Jackson, who, voyaging from England with his six brothers, settled in Hamilton county, Ohio, where he passed the remainder of his days. His son, Elias Baldwin, lived near the present site of Cincinnati, but later removed to Butler county, near the town of Hamilton, where he died at the age of eighty-five, leaving among other issue William Alexander Crooks Baldwin, whose birthplace was a farm near Hamilton, and the date 1802. When but a few years of age, the latter was kidnapped by a band of marauding Indians, and for several months was held in captivity. Restored to his parents, he worked in boyhood on the farm, though taking full advantage of such opportunities as were afforded by the district schools. In early manhood he married a daughter of a neighboring farmer, by whom he had five children: Elias Jackson, George, Sarah, Ann, and Evaline.

Elias Jackson Baldwin was born in Butler county, Ohio, on the 3d of April, 1828, removing with the family when six years of age to a farm in northwestern Indiana, some ten miles from South Bend. Here, as was the custom, he worked in summer and attended school in winter, except for a twelvemonth, when his parents sojourned at Crawfordsville, to give their children the benefit of a higher education. At twenty he married, taking for his wife the daughter of Joseph Unruh, and for a year after his marriage continued to labor on the farm, laboring faithfully and well, on one occasion, as he relates, handling a cradle while cutting grain for forty consecutive days, not even allowing himself the weekly day of rest. This was in 1846, when farming was still conducted, almost as in the days of the pilgrim fathers, without the aid of labor-saving machinery.

But farming was not the occupation in which Elias was destined to make his mark in life. With its poor returns and slender prospects he had long since become dissatisfied, and now he turned his attention to mercantile pursuits. By trading in horses, of which he was an excellent judge, he had accumulated about $2,000, and with this sum he established a grocery business at Valparaiso, Indiana, in which he did fairly well, but not so well as he desired. Believing that he would find the town of New Buffalo, on the Michigan road, a more promising location, he opened there a hotel and general store. Trade was measurably active and profitable, so that he soon began to enlarge his ventures, building, for instance, several canal-boats, which he loaded with grain for St Louis. Two years later he disposed of his interests, and removed to Racine, Wisconsin, where he opened a large hotel. Thus early we see displayed his characteristic qualities. He was not yet twenty-five, and without any wide range of experience; yet he was conscious that his powers had met with no fitting opportunity; he had never lost faith in the greater possibilities that lay before him, and in his ability to make avail of them; hence he could not rest contented in a narrow and contracted sphere.

Thus it was that in March 1853 he resolved to set forth for California. Purchasing a number of horses, he fitted out four wagons, one of which he loaded with brandy, and another with tobacco and tea. Such articles, he thought, must find a profitable market, either at the mines or some intermediate point.

As usual he judged correctly, for on reaching Salt Lake City he disposed of the greater portion of his cargo, the tobacco at $1 a plug, and the brandy at $16 a gallon, to the brother of Brigham Young. The proceeds he invested in horses, for these, at least, he could bring to his journey's end, even if compelled to abandon his wagons and merchandise. At first his party consisted of only eight persons: himself and wife; a young woman named Rachel Wormer, intrusted to their care to join her brother; W. F. McHenry, a neighbor of Baldwin's at Racine, and three other men. The company proceeded through Wisconsin to Des Moines, Iowa, and thence to Council Bluffs, where they were detained for a number of days, awaiting the arrival of the ferry-boat. After crossing the river, on the eastern bank of which a single log cabin marked the present site of Omaha, they followed the Carson trail, with little deviation beyond the Utah boundary. The journey was one of unusual peril and difficulty, for the Indians were in hostile mood, exasperated by recent conflicts with emigrant parties. Trouble was also encountered in crossing the larger rivers, their currents dangerously swollen in this rainy season of 1853, and the usual expedient must be adopted of making water-tight boats of the wagon-beds, and swimming over the stock.

From time to time the party was joined by others for mutual aid and protection, until the entire caravan included one hundred members, with more than fifty wagons. After reaching the south side of the Humboldt, Mr Baldwin, as captain of the company, was driving one day in advance, accompanied only by Miss Wormer and two or three of his men. On reaching a plain a few miles distant, he observed a troop of Indians, whose actions portended mischief. Deeming it best to return, therefore, he lashed his horses into their fullest speed and drove backward toward the train. Then from the long grass rose swarms of Indians, armed with revolvers or rifles, who, had such been their purpose, could easily have massacred the occupants of the wagon. But their object was to take them alive, and especially the young woman, who, while four of the savages clutched at the harness, escaped from the grasp of another only by dropping into the bed of the wagon. Thereupon ensued a race toward the mountain point directly ahead, where, as its pursuers supposed, the wagon would be brought to a halt. Turning this point, however, they came in sight of the train, which was also beset by a band of Indians. Nothing daunted, Baldwin drove straight at the enemy, weapon in hand, and, startled at the audacity of our 'bold winner,' the assailants took to their heels. A corral was formed, from the protruding rifles of which the redskins prudently held aloof, though maintaining from the adjacent foothills a desultory but harmless fire. Here, certain of the women being taken sick, the company remained for several weeks without any serious molestation.

The further adventures of this party I need not here relate in detail; how on one occasion they saved themselves from an Indian onslaught only by plunging into a stream, first driving in their mules and clinging to their tails; on another, Mr Baldwin, losing his way on a hunting excursion, was rescued from death by starvation or mountain fever by a band of friendly savages. Suffice it to say that through Mr Baldwin's able generalship, his courage and presence of mind in moments of danger, the company reached its goal in safety, though passing on the way the mouldering remnants of many a train whose members had found there a nameless grave.

On the 10th of August, 1853, we find Mr Baldwin at Placerville, where he arrived in excellent health and spirits, though sore-footed and shoeless, his only remaining pair being presented to his ward, whose shoes were completely worn out on the journey. After a brief rest he pushed forward to San Francisco, at that date already a city of considerable size. Here his first venture was to purchase a temperance hotel on Pacific street, near the corner of Battery, and this he sold within a month at a profit of $5,000. He did not at once reinvest his money, but spent some time in looking about him for a favorable opening. "Those days were not like the present," he says; "one had to run about and ask people to sell." Presently he bought and conducted a hotel called the Clinton house, disposing of it to a Mr Corbett and then seeking for some suitable employment, though for a time he found nothing to his taste. Soon afterward it chanced that he met Mr Wormer, brother of the young girl who had crossed the plains with his family. With this man, who owned a brick-yard on the corner of Powell and Union streets, Baldwin, after a period of enforced idleness of which he quickly tired, entered into partnership, though, as he relates, at that time he hardly knew a brick from a stone. But if he knew nothing about brick-making, he knew how to make himself felt in anything that he took in hand; he knew how to manage and develop a business, how to obtain contracts, and make money. The technical acquaintance with the business was something that would soon be learned, if he so desired, and in a short time he became as good a brick-maker as his colleague. When the time of his partnership had expired, he opened a yard of his own on Lombard street, and within a few months had large orders to fill. The bricks for the old catholic church, on the corner of Dupont and California streets, for the old United States mint on Commercial street, and for the catholic church that stood on the site of the Palace hotel were all supplied by him.

At this time work was in progress at Fort point and Alcatraz Island, the commandant of which was Colonel de Russe. Knowing that bricks would be needed, Baldwin called on the colonel and offered to make them for him at the fort, promising to supply as good an article as could be obtained in San Francisco. The officer was disposed to think well of the project and promised to consider it. Two days later he called at his office on Montgomery street, taking with him three or four bricks wrapped up in a newspaper, somewhat to the amusement of his men, who laughed at him for carrying a brick-yard under his arm. But Colonel de Russe was satisfied that Baldwin knew his business, and the next day a salaried engagement was made, and the work begun. By the terms of the contract he was to receive $500 a month, and board the men, from which, as there were many employed, he made at least $500 a month additional. At first he had some difficulties to contend with. The clay was bad and the first bricks were poor; but a search throughout the neighborhood resulted in finding better material. Soon everything went smoothly, for Mr Baldwin acted on his motto, "If a man is determined, he can do anything in the world." Though he had learned something of brick-making, he was, as he himself expressed it, "not the best brick-maker in the world"; but that fact he kept to himself, and talked as though he could give points to the best brick-maker that ever lived, as no doubt he could after studying the process from books as well as in practice, procuring all the works on the subject within reach, and spending half his nights in reading them. At least he knew enough of the business to hold the government contract for three or four years, during which time he supplied all the bricks for the forts at the point and at Alcatraz.

And he made money; he would not be Baldwin otherwise. Some of his accumulations he put out on mortgage, and some he invested in real estate and mines, purchasing among other properties a two-hundred-and-fifty-vara lot on the south side of McAllister street. One day he was told that some persons were occupying this lot and had partially enclosed it with a fence, for squatting was then common in San Francisco, not infrequently resulting in serious encounters. As soon as Baldwin heard of it he procured a number of shotguns and revolvers, ordered a couple of teams to be harnessed, filled the wagons with armed men, and drove at full speed toward the spot. But quick as he had been to act, tidings of his approach preceded him. Before he had reached the place, men in red shirts were seen flying panic-stricken over the sand-hills. "It was my property," says Baldwin, "and I was not going to be beaten out of it in that way."

For several years, or until prices reached a point which he considered dangerous, Mr Baldwin continued to invest in real estate, and none foresaw more clearly the future greatness of the city, which many believed could not survive the exhaustion of the Placer mines. Observing, as he had done, the opportunities for making money in this direction, he could not do otherwise than invest his surplus means in land. And this he did with discretion and also with confidence, with the confidence born of experience and success, investing not only the thousands which he accumulated in his early business career, but the millions which he afterward realized through bold but well-considered ventures in mines and mining stocks. With the past and present of the real estate market, with its general condition and prospects, there was no one more familiar, no one who knew better where to invest and when, avoiding always the hazard attendant on periods of excitement and inflation. Instance his purchase of the so-called McCrellis lot on Market street, between Fifth and Sixth, of the Baldwin hotel site, and other business properties, especially on Market street, where values have appreciated more rapidly than elsewhere in the metropolis, and among his residence sites, a number of fifty-vara lots in Hayes valley, where, as he foresaw, would be a growing demand for homes.

Where a man has made such exceptionally good use of his opportunities, it is perhaps ungracious to consider how much better he might have done had he been able more completely to forecast the future. But the time was when Mr Baldwin could with the utmost ease have bought, almost for a trifle, land near the site of his hotel, whose later value was twenty-five to fifty millions. He used to go hunting with his friends over the very ground which he later purchased, paying some half a million dollars for a lot adjoining the hotel. This tract in the early days was so covered with underbrush and trees that the hunters could barely cross it on horseback, meeting occasionally a California lion stalking through the brush. It was the playground of rabbits and quail.

Mr Baldwin was already a wealthy man, as wealth was computed before bonanza times, and he could now afford himself a holiday. In 1867, therefore, we find him, in company with a party of Englishmen, en route for India, where he engaged in a little elephant and tiger hunting, both of which were quite to his taste, and the more so as he was a quick and unerring marksman. On his homeward journey he passed some weeks in China and Japan, and of all of these countries his descriptions are full of interest, for not least among Mr Baldwin's faculties is the faculty of observation.

Returning to San Francisco, he continued his real estate and mining investments, meeting in both directions with his usual success. For several years he had kept six or eight men constantly employed in prospecting, and in part through their reports, though only when confirmed by his own judgment, some of his most profitable investments were made. Mining-stock speculation was also assuming gigantic proportions, especially in the shares of the Comstock lode, presenting a wider scope for his speculative powers, while the activity and excitement attendant on this pursuit were congenial to his strong, energetic nature.

He soon withdrew from the real estate market and for a time concentrated his attention on mining. He made a thorough study of the Comstock mines, made himself perfectly familiar with their characteristics, and acquired a knowledge of the subject that enabled him to gain the mastery in many a gigantic stock deal.

In the earlier days of the Comstock, when Ophir, Gould and Curry, Savage, and other favorite mines were yielding bullion at the rate of millions a year, Baldwin gathered a full share of the golden harvest which fell only to the lot of the shrewdest and best-informed operators. As in real estate, so in mining stocks, he had learned not only when to buy but when to sell, the latter by far the more difficult lesson of the two. He had learned also how to avoid the snares and pitfalls which the manipulators of the stock market too often laid for the unwary. And here it may be said that with such manipulations Baldwin had little to do; that neither in mining nor other transactions was it his custom to engage in anything that savored of indirection. What he did was to buy and sell stocks on reliable information—on information which he knew to be reliable from his own personal observation and from the advice of his own experts, and not in the sense in which such information has become a byword among the community. That in doing so he avoided the snares which beset the path of the speculator was due to his superior forethought and sagacity, to his knowledge of men and of the business in which he was concerned, to the fact that he never allowed himself to be carried away by the excitement of the hour, that his dealings were based on a definite and well-considered system, and not on the hearsay of all and sundry who repeated merely the idle gossip of the street. In truth, his transactions were rather in the nature of investments than of speculation, for investments in mines of ascertained merit can be made almost as safely as in real estate, and at times with a prospect of far more profitable returns.

The ethics of stock speculation is not my purpose to discuss; but certain it is that in one form or other men have speculated almost from time immemorial and will continue to speculate so long as time shall endure. Whether they select, as their basis, wheat or corn, oil or pork, whether real estate or railroad shares, or, as in Europe, government bonds, the spirit and intent are essentially the same. But there are degrees in speculation, some of them being gambling pure and simple, or with intent to defraud by false representations by working on the credulity of the public; others as unobjectionable as the most legitimate of commercial transactions. To gain control or purchase an interest in a mine that one knows to be possessed of merit, and to dispose of that control or interest at a profit, is surely a legitimate transaction, and only in such transactions has Baldwin engaged. By none has he been accused of distributing 'points' to entice the unwary into buying, at extravagant figures, stocks that he wished to dispose of. On the contrary, he has often given such advice as has made the fortune of others—has made others rich almost against their will. Nor was it merely by good fortune that his millions were acquired, and to none, as I have said, was the epithet 'lucky' more unjustly applied. If he was lucky it was the luck that came of his own making and thought, the qualities with which nature had endowed him, his keenness and directness of purpose, that neither swerved nor faltered until its object had been reached.

But to return to the Comstock. After a few years of marvellous prosperity, the glory of the great lode departed for a time, and evil days befell the silver state. The yield of bullion had sunk from the millions into the thousands; dividends were few and small and far between; but assessments were levied with unfailing regularity, and in such amounts as sorely to tax the patience and pockets of share-holders. The upper levels were no longer productive; as depth was attained no further deposits were unearthed, and men said that the Comstock was exhausted.

But the Comstock was far from exhausted. On the contrary, this era of depression was followed by a yield such as had never before been known in the history of mining. From the Crown Point and Belcher were extracted between 1871 and 1876 more than 1,000,000 tons of ore, producing about $60,000,000 in bullion, and in dividends $26,000,000, or nearly as much in bullion, and some 40 per cent more in dividends than had thus far been taken from the entire lode. Meanwhile the great bonanza had been unearthed in Consolidated Virginia, extending far into the ground of the California, adjacent on the north, and from this $130,000,000 has been added to the world's stock of the precious metals, with a total in dividends of nearly $80,000,000. Such changes in the condition of the mines were of course attended with corresponding fluctuations in the value of their stock; Crown Point, for instance, selling at $2 or $3 a share in the autumn of 1870 and at $1,800 in the spring of 1872; Consolidated Virginia at $20 or $30 in January 1874, at $700 in January 1875, and at 10 cents a share a few years later. Meantime fortunes were lost or won; lost, as a rule, by the public and won by the manipulators. Among those who profited by these fluctuations—profited more, in proportion to the amount of his investments, than any of the operators—was Mr Baldwin, no one operating larger. At one time he owned one tenth of the entire stock of the so-called bonanza mines, or about 20,000 shares in all, purchasing only after developments were assured, yet at moderate figures, and not waiting for the extreme prices reached during a period of speculative excitement such as has never been witnessed on the Pacific coas

But it was rather through his connection with the Ophir mine and mining stock that his reputation as an operator was established, and then it was that the term 'lucky' was applied to him by one of those sensational journalists who are ever ready to pander to the vitiated taste of the public. When Ophir was quoted about $8 a share, he purchased all that came on the market, acting on his judgment and on the information of his experts. But presently he found the supply so great that, as he relates, he began to think a manufactory of stock certificates had been established for his special accommodation. Something was wrong, and to find out what it was, he procured and sent to his assayer samples of the rock for the milling of which the stockholders had been heavily assessed. Out of fifty of these samples only one showed even traces of gold or silver. Thereupon, having secured the control, he caused the superintendent to be dismissed, and appointed in his place the man under whose directions was developed a valuable body of ore. All this may be luck; but it is a kind of luck which would appear to be flavored somewhat strongly with discernment and sagacity.

After the development was made, but before its extent was ascertained, Mr Baldwin still continued his purchase, and, as was ever his custom, gave others an opportunity to benefit by his own success. To one man, as appears on his books, he handed a check for $570,000, and to others from $50,000 to $100,000, as their profits on stocks bought for them with his own money and at his own suggestion. To James R. Keene he gave an order to purchase a further interest in the Ophir, promising to pay him an advance on all that he secured, and this he did, relieving him of 1,000 shares at $60 a share. From the same party he afterward bought 11,000 shares, seller 60—that is, allowing Keene 60 days in which to deliver the stock.

This was in 1874, and as was then supposed, Sharon, Ralston, and Jones held control of the mine. But by a recent decision of a New York court it had been held that any one purchasing stock, whether holding it in possession or for future delivery, had the right to vote it at an election, and with the thousands of shares at his command, Mr Baldwin was now in a position to secure the control. There was, however, still another aspirant in the person of James G. Flood, with his partners of the bonanza firm. At this time Lissak was president of the company, and by virtue of his office claimed two votes, one as president and one as trustee—a claim before unheard of, and for which there was no shadow of justification. But such men stay not at trifles when their interests are at stake, and at the bidding of the bonanza firm, Lissak called a meeting of stockholders for the purpose of appointing an extra trustee, whose vote, with his own, would turn the election in favor of Flood and his associates.

On hearing how matters stood, Baldwin obtained an injunction to restrain the proceedings. The meeting had been called for eleven o'clock on the morning of a certain day; as the hour approached he was informed by his attorney, Reuben H. Lloyd, that it would be impossible to serve the papers before a quarter past eleven, and by that time it would be too late. "All right," he said, turning to Lloyd after a moment's pause, "I can arrange that. I will go there and get up a fight. That will stop things until you come with the papers." He then went to a friend of his, named George G. Grayson, and told him to put a pistol in his pocket and go with him, as trouble was brewing and he proposed to have fair play—this, of course, without the least intent to make use of the pistol. They reached the place a few minutes before the meeting had been called, and to prevent undue interference Baldwin locked the door. To this Lissak objected, and during the altercation that ensued, Baldwin struck him a blow that knocked him under the table. By the confusion that followed, some delay was caused, and before order was reëstablished the sheriff arrived and served the papers.

A few days later notice was served on Baldwin's superintendent, Samuel Curtis, of his removal from the office, the president's brother being appointed in his stead, and demanding possession of the mine. But, refusing to acknowledge his authority, Curtis, acting under Baldwin's instructions, telegraphed to his secretary to shut down the mine, ordering the chief engineer to stop the machinery for the moment by removing the boxes of the engines. Thereupon he took the next train for Virginia City, and supported by a body of armed men, hired at from $30 to $40 a day and well supplied with Winchester rifles and revolvers, was instructed to hold the fort at all hazard. On the morning after his arrival, the boxes and engines were readjusted and work was in progress as usual. All this, it may be said, though done under Baldwin's instructions, was also in accordance with those of a majority of the directors. Meanwhile the matter had been placed in the hands of several of the most prominent legal firms on the Pacific coast. At length the dispute was adjusted, Baldwin receiving for his interest $2,500,000 and resigning the control to the bonanza firm. Although the money has long since been paid, the note which secured it is still in his possession, and some day, as he says, may grace the walls of his hotel, together with the other curiosities there exhibited.

And now, instead of being classed as one of the luckiest of men—though this term was never applied to him except by his detractors—Mr Baldwin began to be regarded as one of the shrewdest and most far-sighted, and that his ability was not overrated he gave proof in many a well-contested struggle. Though what is termed in stock-exchange parlance 'an outsider'—that is, one not connected with any clique or ring—he waged successful war against the so-called 'bank crowd,' chief among whom was William C. Ralston, cashier of the bank of California.

Again on this occasion the bone of contention was

Ophir, the stock of which depreciated in value a million or more of dollars within forty-eight hours, and advanced with equal rapidity. Hoping to find him unprepared, the bonanza firm sent word one day to his broker to make good his account at the Nevada bank by three o'clock in the afternoon. At the moment the market was demoralized; but not so Mr Baldwin, who, so far from being forced to sell at a sacrifice, could at one time have netted a profit of many millions, though to have thrown his shares on the market would have produced a panic, and, as in other instances, he would not sacrifice the public interests to serve his own. Finally, however, he retired from the fray with $5,000,000 added to his possessions; and to the defeat inflicted on Ralston and his colleagues, coupled with the fact that Ophir's promised bonanza did not materialize, was mainly due the collapse of the greatest financial institution on the Pacific coast.

Never will the people of San Francisco forget the 'black Friday' of August 26, 1875, when it was whispered about in tremulous breath that the bank of California had closed its doors. At first men would not believe the report, for the bank had long been considered the most stable of all our monetary institutions, and that it should collapse was no more thought possible than that the skies should fall or the mountains be cast into the seas. But the rumor was only too true, and on the afternoon of this day the panic fear that spread through the city was further intensified by the death, and as was supposed the suicide, of the cashier, by whose indiscretion—to use no harsher phrase—the catastrophe had been brought about. The streets were filled with a surging multitude, a dense, black mass of terrified and despairing men, for all were aware that a dire calamity had befallen the commerce and industries of the city, the state, and the coast. It was in truth a grewsome spectacle, such as never before had been witnessed in this our western metropolis, and never, let us hope, shall be witnessed again.

But let us hear the part which Mr Baldwin played in the rehabilitation of the bank of California, for his was a leading part, and by him and a few other public-spirited men was averted a financial crisis such as would have paralyzed the entire community for many a year to come. For two or three years he had been among its largest depositors, having at one time $3,600,000 to his credit, bearing interest at nine per cent. When the bank closed its doors he was its heaviest creditor, with a balance of more than $2,000,000. He was then in the eastern states, and the fact that the bank was paying such large interest had long caused him uneasiness. After largely reducing his account, he telegraphed for $400,000 more; but this he never received, for an hour later a message from his attorney was placed in his hands advising him of the bank's suspension. In his answer, at once despatched by wire, he said: "Protect my interests, but do nothing to hurt Ralston." Thereupon he immediately returned to San Francisco. Says R. H. Lloyd: "I asked Ralston what was the actual condition of the bank; he said: 'You and I have had several transactions, and I always told you the truth, didn't I?' I said: 'Yes, sir, I think you always did.' He then said: 'There is dollar for dollar in this bank for the depositors, if properly managed, but very little for the stockholders.' Believing that, I went to Sharon and suggested the idea of subscribing money and putting the bank on its feet; he eagerly seized the idea. We went to work at it, and when Baldwin came back, he said, 'You did just right,' and took hold of it. Mr Mills and his attorney wanted to put the bank in insolvency, which we strenuously resented, and succeeded in stopping."

A heroic effort was made to repair the disaster, and I am doing no injustice to others when I say that, but for Mr Baldwin's coöperation, this effort would have been in vain. Night after night he passed at the residence of William Sharon, in company with his attorney, Reuben H. Lloyd, and Michael Reece, often working until daylight surprised them at the task, while devising means for bringing order out of the chaos. None others were present, either among depositors or directors, and by Mr Baldwin and his colleagues was assumed the load of the bank's responsibilities and obligations. Every argument was used, every inducement offered, to secure the forbearance and aid of other capitalists, to enlist their sympathies in a project which has since been acknowledged as among the greatest financial achievements of the age. Nor was it until after a severe and protracted strain—a strain not only on their resources, but on their vital powers, taxed as they were to the utmost limit of human endurance—that their purpose was finally accomplished. At length, however, it was accomplished, a fund being subscribed to reorganize the bank to pay the depositors and to resume its business with a new and sufficient capital. To this fund Baldwin and Sharon contributed each $1,000,000, Lloyd $100,000, and others as means and inclination dictated.

In bringing about this result, it is the opinion of those best informed on the matter that Mr Baldwin has not received his due share of recognition. Not only did he, as the heaviest creditor of the bank, refrain from attaching its property for the $2,000,000 at his credit, but risked an additional $1,000,000 in the project for its rehabilitation, a project which by the community at large was deemed well nigh impossible of achievement. Nor did he stop here; but long continued to give the institution the benefit of his moral support. On the very day when its doors were reopened, while timid creditors were withdrawing their deposits, he placed on the counter all the money he could carry—some $40,000 in double eagles, and otherwise aided in restoring confidence among the faint hearted, many of whom were thus prevented from closing their accounts. Whatever may have been the motives of other far-seeing men, whose forbearance may have been exercised and their responsibilities assumed to avert financial ruin, or in the expectation of benefits which might accrue to them later, no such motives can justly be attributed to Mr Baldwin. Rather was he actuated by sympathy for the fallen, by a becoming sentiment of pride—a pride that would show to the world, to enemies as well as friends, what a deed these men of California were capable of accomplishing—a deed that had for its object the salvation of his adopted state, that should prevent a collapse which would have shaken the community to its centre, a catastrophe which years would not have effaced.

And now let us turn once more to Mr Baldwin's investments in lands and buildings, whereby he has given to the Pacific coast metropolis one of the largest and by far the most handsome of its hotels and theatres, with other caravansaries on the shores of Lake Tahoe, and amid the mountains near whose base Los Angeles sits enthroned. Near to that city he has also opened for settlement a tract of irrigated land that will sustain in comfort many hundreds of families.

In 1873 was begun, and in 1877 completed, on Market street, San Francisco, at the junction of Powell, the Baldwin hotel, at a total cost, including site and furniture, of more than $3,000,000. With two or three others it shares the distinction of being the best-appointed structure of its kind west of the Mississippi. In shape it is rhomboidal, in architecture in the style of the French renaissance, with Corinthian columns and mansard roof, six stories high, and surmounted by a dome 162 feet in height, with numerous turrets of lesser altitude. The rooms on the ground-floor are paved, and wainscoted with marble tiles and decorative work of the finest description, the appointments of the bar and billiard-rooms being unequalled by any other on the coast. The decorative work of all these rooms is artistically carried out; each of the windows opening on the street is of itself a work of art; between the several offices and rooms are swinging glass doors, figured with beautiful designs; while set in the gilt screen that separates the lounging-room from the office are three stained-glass panels of exquisite workmanship, representing scenes in Mr Baldwin's journey across the plains, one of them a picture of his wagon and team with the name E. J. Baldwin marked on the canvas, another depicting the Indian attack on his camp. In the bar-room hangs a life-size picture of the famous stallion Emperor of Norfolk, painted by H. H. Cross of New York; in other portions of the room are large paintings of Mount Shasta, and the Santa Anita rancho, the latter representing Mr Baldwin surrounded by his dogs, with his little daughter playing near him. To the left of the bar is a cabinet of curiosities well worth examination, with some fifteen or twenty racing-plates won by celebrated racers, as Lucky B., Volante, Los Angeles, and others. Here also is the knife with which Judge Terry stabbed Hopkins; it is of beautiful workmanship, and enclosed in a finely chased sheath. Among other interesting curios is the menu of the Sharon dinner given in 1878, engraved on an oblong plate of solid silver. In the reading-room is a landscape by Hill portraying a scene in the redwoods, and a cabinet of minerals, gathered from all parts of the coast, including many fine specimens of silver, lead, iron, and gold ores, some of them gathered by Mr Baldwin himself. The broad stairway leading from the office to the second floor is composed of solid slabs of marble with balustrades of variegated woods. On the landing is a stained-glass window, representing in many-colored glasses the coat of arms of California—one of the finest pieces of decorative work in the hotel.

There is perhaps no city where hotel patrons consist more largely of families than in San Francisco.

The Baldwin hotel is designed especially to meet the wants of such patrons, and the rooms are so planned that any number desired can be included in a separate suite. Prior to its erection Mr Baldwin visited many of the eastern cities, and personally inspected their hotels, with a view to embody in his own all the most recent appliances for comfort, luxury, health, amusement, and homelike entertainment.

The Baldwin theatre, acknowledged to be the most comfortable and tastefully embellished west of Chicago, was modelled after Booth's theatre in New York, and both as to design and execution ranks as the most skilful effort of an architect who has long won for himself a national reputation. But this well-known temple of the drama it is unnecessary here to describe in detail, for there are few among the residents of the metropolis or among its visitors who have not admired the arrangements of its auditorium, where every seat commands a view of the stage, the rich upholstery, which gives to it an air of warmth and comfort, the excellence of its acoustic properties, the ceiling, frescoed by Garriboldi, and the drop-curtain, whereon was depicted by the same artist the closing scene of Hamlet.

In addition to the Tallac house, with its eight thousand acres of woodland on the shore of Lake Tahoe, and the Oakwood hotel at Arcadia, in the highlands of Los Angeles county, the former a summer and the latter a winter resort, Mr Baldwin is the owner of valuable business and residence properties in the cities of Los Angeles and San Francisco. At Bear valley, in San Bernardino county, he has 6,000 acres of land, with water rights and mining interests yet almost undeveloped. But of all his landed possessions, the one in which he takes most pride is the Santa Anita rancho, situated in San Gabriel valley, about twelve miles northeast of Los Angeles, at the base of the Sierra Madre. It is a spot whose attractions, both natural and artificial, it would be difficult to exaggerate, and we know not whether most to admire its vast extent, the magnitude and diversity of its interests, the beauty of its situation, the skill with which its various operations have been planned, or the wellnigh perfect generalship with which they have been executed.

It was in 1875, when on the way to his Bear valley mining property that Mr Baldwin first saw the San Gabriel valley. It was then covered with a wild, tangled growth, and without a human habitation, save a few adobe houses scattered here and there; but on the plains was a magnificent crop of wild oats; and this proved to him conclusively that here was an opportunity for development. For the Santa Anita tract of some 8,500 acres, he paid $200,000, later acquiring others until the entire rancho known under that name amounted to 54,000 acres. The estate occupies an almost level plateau, with an average elevation of about 1,800 feet, and a slope of not more than 40 feet to the mile. The Sierra Madre forms its northern boundary, towering rugged and snow-capped above it, and shutting out the bleak winds that occasionally blow from the north. At the base of the mountains the land is rolling, forming low hills, whose scattered growth of oak borders the broad stretch of cultivated ground below. Through the centre, running from the county road on the south to the mountains on the north, is an avenue fifty feet wide bordered on the right by a long line of dark eucalyptus trees, and on the left by palm ferns, while through the avenue itself extend rows of light-green pepper trees. The soil is a gravelly loam, mingled with decomposed granite and quartz, an admixture peculiarly adapted to viticulture and the citrus fruits. Frosts are less frequent here than on lower lands, and the hills to the south are of sufficient height to protect the valley from direct ocean winds and fogs, without cutting off the current altogether, which in the form of a modified sea-breeze blows in summer from ten o'clock until five. The rainfall is somewhat greater than in places a short distance to the south and west.

The water system, planned by Mr Baldwin without the assistance of engineers, has been built up gradually as the place has developed, and as the need of water has increased, now constituting one of its most important advantages. There are three pipe lines, each obtaining its supply from separate sources in the mountains to the north, running into the cañons, and terminating in a large tunnel in the mountain side, in which there are large springs. From the main aqueducts the water is conducted to all portions of the estate so as to irrigate most effectually whenever irrigation is required. There are also about 200 artesian wells, each with a flow of many thousand gallons a day. The artesian belt comprises some 2,000 acres, in any part of which water can be struck at a depth of about 100 feet.

The orchards are located in the southwestern portion of the estate, and contain nearly all the varieties of semi-tropical and deciduous fruits. In the orange grove are about 500 acres, of which the greater part is planted in trees now twenty years old, with an addition in which the trees are of fourteen years' growth, forming one of the oldest plantations in California. All were selected by Mr Baldwin, and the grove was laid out according to his ideas. This has been indeed his special care, and in no other feature of his farm does he take so much pride. Nor has his care been unrewarded, for some of the trees have produced at a single crop as much as 18 to 20 boxes apiece, with an average profit per acre of from $1,400 to $1,600. In an adjoining nursery are 1,000,000 young orange trees, which can be planted in this locality at any time of the year. There is besides a large grove of lemon trees bearing a choice quality of fruit.

The walnut plantation was laid out in 1879, under the personal supervision of Mr Baldwin. The trees are forty feet apart and yet the boughs are all interlocked and so laden with nuts that strong props are required to support them. Besides the English walnut tree, of which there are 3,000, there are soft-shell almonds, peach, pear, apricot, fig, and Japanese persimmon trees, with a large plantation of olives, and of camphor, pepper, coffee, and tea plants.

Adjoining are the vineyards and winery, where are made each year about 30,000 gallons of brandy and about 100,000 of wine, including port, angelica, zinfandel, claret, white wines, and sherries. In the manufacture of brandy the greatest care is taken to produce the best results as to purity and flavor, thus commanding a high reputation and an extensive sale. Mr Baldwin absolutely refuses to sell his wines and brandies with a French label, as is the practice of many vintners, who send their best qualities thus marked to the east and to Europe, while the poorer descriptions are sold as California wine. The injury done to our wine trade by such short-sighted methods is incalculable, and cannot be too strongly condemned.

Mr Baldwin sells no brandy until it is five years old, and also stores the larger portion of his wines for as long a period. He has one large brick building entirely devoted to the storage of sherry, and three wooden buildings for his other wines and brandies, each containing 50 enormous casks, capable of holding 1,500 gallons apiece. In one of these buildings are fifty-five gallon barrels of brandy; in another some very choice muscatel wine, eight years old, and reserved for guests. All the bottling and coopering is done at the winery. The vines, of which there are 700 acres, are of many varieties, with only twenty acres in mission grapes. Here, as elsewhere, there has been some trouble with fungus; but by judicious management it has been prevented from spreading, and is now no longer a source of annoyance.

A beverage of which Mr Baldwin manufactures a considerable quantity is orange champagne. The oranges are pressed and the liquor fermented at the winery, forming at this stage a colorless fluid like water, but with a strong orange flavor. It is then put into casks to be made into champagne and shipped to San Francisco, where it has become a popular drink, and is styled by connoisseurs the nectar of the gods. In neither orchard, vineyard, nor winery is anything wasted, even the orange seeds being collected at the end of the process, and sold for $1.25 a gallon.

On another portion of the farm are cut about 2,500 tons of hay a year, with a large quantity of alfalfa, the latter yielding several crops of from 15 to 20 tons to the acre. About two-thirds of this is used for home consumption, and the remainder is sold. Some 28,000 sacks of grain are annually stored in the granary, but form only a portion of the crop. The harvesting of the various products lasts throughout the year.

The quantity of live-stock on the Santa Anita rancho is very great. Grazing on the foothills at the base of the mountains are 20,000 sheep. For dairy purposes there are 2,000 cows, of which 100 are Jerseys, and nearly as many of the pure Devon breed, imported from abroad, with a considerable number of the Holstein, short-horn, and Durham breeds. From this dairy, which is run entirely by steam-power, and fitted with all the latest and most improved machinery, both the farm and the hotel in San Francisco are furnished with butter. What remains finds a ready market at a dollar a roll the year round, and it is impossible even at that price to supply the demand.

In the breeding of running horses Mr Baldwin stands at the head of the Pacific coast. His first purchase was made in August 1874, when he bought the Kentucky-bred stallions Grinsted and Rutherford, paying for the former about $10,000 and for the latter $8,500. In the following spring he bought the thoroughbred mares Josie C. and Maggie Emerson, raised in Kentucky; and at Alexander's stud-farm at

Woodburn, Kentucky, he purchased for breeding purposes the six yearling fillies Jennie D., Blossom, Clara D., Santa Anita, Glenita, and Ophir. In 1877 he added to his stud several other mares, among them Jennie B., Experiment, Athola, and Sister Annie. With these he determined to try whether he could not raise even better horses than were produced in the blue-grass state, for, in his opinion, now generally accepted, California possessed several important advantages over the east. Mr Baldwin was not only a pioneer in this business, but the first one to compete for honors on the eastern turf, where each year he has from 25 to 30 horses, whose average winnings are not far from $100,000 a year. He believes that in time eastern breeders will send to California to purchase their choicer stock, just as they have hitherto gone to Kentucky for that purpose.

The Santa Anita stud comprised, in 1891, about 54 brood mares, the celebrated stallions Grinsted, Rutherford, Emperor of Norfolk, The Hook, Gano, Amigo, and Verano; the geldings Albert C. and Cannon Ball, and the trotting horses Baldy, Saint James, and Kitty Wink. The Emperor of Norfolk is a noble animal, with one of the finest records in the annals of the American turf, having won in 1888 the American Derby, the Drexel, and the Sheridan stakes, all the same year—the only horse that has accomplished such a feat. He is a beautiful light bay, weighing about 1,100 pounds; was raised by Theodore Winters at his place near Sacramento, and was sold by him to Baldwin for $2,525.

Although in a measure he regards his stables as a money proposition, Mr Baldwin takes great pride in his stud. In the raising of running horses, to which he has almost exclusively directed his efforts, he is a *facile princeps*, since, in proportion to the size of his stud, he has been the most successful man in America. It is a very important work that he has accomplished in connection with these stables, one of the most important of all his undertakings, the most far-reaching and beneficial in its results to California. From the success that attended his efforts at a time when he was the pioneer horse-breeder of the coast, other men of wealth have been led to engage in the raising of running and trotting horses, with the result that horse-raising is now one of the leading industries of the state, and California is known in both hemispheres for the quality and exploits of its stock. We may indeed say that the honor of producing a Sunol was in a large measure made possible by Mr Baldwin's sagacity and enterprise.

Mr Baldwin's residence lies not far from the orchards. After passing through avenues bordered with shade trees, through walls of evergreen hedges, and under trees of semi-tropical foliage, one suddenly sees before him a broad expanse of lawn, laid out with brilliantly colored flower-beds, and dotted with ornamental trees and ferns, with palms and weeping willows. The house is approached through a walk arched over by foliage, in the middle of which, under a roofing of old mission tiles, is an ancient bell from the mission San Gabriel. A little beyond is an artificial lake eight acres in extent, clear as crystal, and bordered with rushes and trees. On its edge is Mr Baldwin's residence, a quaint one-story edifice of Japanese design, surrounded by a low porch hung with lanterns, with a flight of marble steps in front, on either side of which are two artesian wells, overflowing into a marble aqueduct adjacent to the dwelling, and almost hidden among the bright-colored flowering creepers. The windows are of plate-glass with a stained-glass border, in which are represented various objects of art. The dining-hall and kitchen are in a separate building, about forty yards to the left. Around the house are trees that are seldom seen in California, as beech, elm, black walnut, and the maple, such as Baldwin remembers surrounded his father's dwelling-place. Among them is a beautiful weeping willow, which has a remarkable history. It was cut some years ago from a tree at Napoleon's tomb, and when presented to Mr Baldwin was apparently dry and sapless, but after he had planted it, in due time it began to sprout and is now a large tree with graceful branches reaching nearly to the ground.

The scene is one of fairy-like loveliness; not only the little bijou residence and its surroundings, but the entire estate, with its groves and vineyards, its golden fruit and waving harvests, its shaded drives and vistas of mountain peak and valley, carrying the beholder into an ideal region, calm and peaceful as the fabled realm of Rasselas, where soft vernal airs induce forgetfulness of the din and turmoil, the crowded streets and selfish intensity, of city life.

On the northern and eastern sides of the rancho several square miles have been subdivided into tracts of ten and twelve acres, which are sold at the rate of $200 per acre, twenty per cent in cash, and four per cent interest on the balance, the purchaser being allowed six years to complete the payment, during which time all taxes are paid by Baldwin. Before a deed is given the buyer must improve the land, and plant a certain number of trees. Water is furnished free the first year; afterward at whatever rate the trustees of the water company may determine. All this land is of the best quality, with a rich soil capable of raising the finest description of fruit, or for making more speedy returns from crops of grain or alfalfa. The first land sold was on the northern portion of the rancho, where now lies the settlement of Sierra Madre, an attractive colony composed of small farms with well-kept avenues planted with shade trees, and homelike cottages surrounded by trim and tasteful gardens.

In 1885, some 90 acres were sold at Monrovia, on the eastern side of the estate. This was afterward subdivided into town lots, and within six months from the time the first stake was driven, there was on the tract, and on adjacent lands sold by Baldwin, 3,000 inhabitants, with two banks, a business block, and a street-car line. All of Baldwin's sales have been made in small tracts, for the most part on time, and with almost any term of payment desired by the purchaser. There has not been a single foreclosure; nor are there among all the people now living on these lands any who have fault to find with their purchase, or with the proprietor's business methods.

Through the entire estate from east to west runs the line of the Santa Fé railroad, with the station of Santa Anita near the western border. Right of way was granted free of cost, for its owner foresaw that the road would be of untold benefit to his property. The Monrovia Arcadia and Pasadena railroad traverses the farm, connecting the colony of Arcadia in the eastern portion with the suburbs of Los Angeles. There are also several tracts upon which cars can run, connecting the various portions of the estate.

An account of Santa Anita rancho would be incomplete without a few lines devoted to the subject of its management. Mr Baldwin may be termed its general-in-chief, as well as its proprietor, for he has been not only its creator, its engineer, its landscape gardener, and the designer of its orchards, vineyards, stables, winery, and hydraulic system, but he also directs, and during a portion of the time personally supervises, the workings of its multifarious interests. Baldwin is one who trusts his fellow-man, allowing all in whom he has confidence a certain latitude in executing his orders, though never permitting his employés to assume responsibilities without first consulting him. Over all his vast interests he exercises a general supervision, is the man who pulls the strings, and knows exactly what is being done in each department. His chief-of-staff is H. A. Unruh, the very competent and energetic manager of the rancho. He is a man of some forty years of age, far-seeing, shrewd, broad in his ideas, penetrating in his judgment of men; and no one could wish for a more faithful steward for his possessions, or a more able lieutenant in carrying out his plans.

Besides the Santa Anita rancho, Mr Baldwin owns, as I have said, some 6,000 acres of land in Bear valley, thirty miles northeast of San Bernardino, purchased together with an interest in a mining property in 1873. At first they were held by a joint-stock company, with himself as principal stockholder, but a few years afterward he became the sole proprietor, expending large amounts in building roads and procuring water for his mills. Though for a time regarded almost as worthless, the land needs only water to become valuable for pasture and for raising deciduous fruits. On the eastern side of the valley, and almost in the centre of the tract, is a lake four and a half miles long, a mile in width, and filled with water the year round, through the melting of the snows in the mountains adjacent. While passing to and from his mine, its owner became impressed with the idea that by tapping the lake with a tunnel, its waters could be conveyed to the government lands adjoining and to the desert lands beyond. This project he proposes to carry into effect, showing intending settlers what lands are vacant, and contracting to supply them with water. Under the laws of the United States a section of such land can be secured on condition of expending one dollar an acre for four years, and when supplied with water may be converted into a comfortable and productive homestead. In the valley, at an elevation of 7,500 feet above the sea-level, is a hot spring, near which Baldwin proposes to build a summer resort, for the climate is nowhere excelled, and in the neighborhood is some of the finest scenery in southern California.

In conclusion, let us turn to his domestic life, with a brief description of his appearance and characteristics, together with his views on the current topics of the day. Mr Baldwin has been four times married. By his first wife, whose name has already been mentioned, he had two daughters, one of whom died in infancy and the other was wedded to Mr Harold, the son of a celebrated Philadelphia physician. His second wife was a Miss Cochrane of New Orleans, and his third a Miss Dexter, by whom he had one daughter, born in 1878, a bright and attractive child, who has always been as the very light of her father's eyes. His fourth choice was Lillie C. Bennett, the daughter of the well-known architect.

Mr Baldwin is about five feet ten inches in height; and though he weighs a hundred and seventy-five pounds he is slight rather than stout in appearance, the weight being concentrated in bone and muscle. He does not seem to have one ounce of superfluous flesh, but looks rather as though he were trained to a fine point, like one of his own race-horses, and ready for any call that may be made on his strength and endurance. His features are regular and expressive, but somewhat sharp and clear-cut; the forehead arched and lofty; the eyes of a brownish hue, keen and penetrating, but kindly in expression. On his face is the stamp of power, of firmness and indomitable will, the will of a self-made and self-reliant man, of one who has perfect control of himself and is well fitted to assume the control of others.

In manner and conversation he is singularly modest and unassuming. He talks in a quiet tone, with gentle and modulated voice, expressing himself always with force and clearness, and often with pungency and humor. While the general tenor of his discourse is tranquil, self-contained, and deliberate, without waste of words, and yet without the least attempt at being laconic or oracular, at times, when he becomes especially interested in the subject under discussion, he warms into animation, and then it is that his remarks are most strongly tinged with humor and sarcasm. He is an excellent listener, but listens with the manner of one whose business compels him to see many people, and to hear many things; and while he is talking the hearer may notice occasionally an expression on his face as though he were drawing himself inward. With all his unaffected modesty, he is not a man who undervalues himself, or one who does not appreciate the part that he has played as a builder of the commonwealth. He takes pride in recalling his past history, in talking about his farm, his hotel, his manifold interests; and he asserts, as a man should do, his claims on the respect and good-will of the public for that which he has accomplished for the general welfare no less than for his own.

The writer of this biography was not a little surprised when first he met him. "Here is a man," he said to himself, "who has a thousand detractors, a large part of whom never saw him, a man whom so many delight in decrying; and yet how modest his bearing, how kindly his manner, how free from arrogance!" And a moment later he heard these words fall from his lips, in the same unostentatious phrase in which everything else had been uttered: "I never treat a man according to the clothes he has on, or the money he possesses. I am always as civil to a hod-carrier or to a day-laborer as to one whom I know to be worth millions; if anything, I would show more courtesy to the former."

A noteworthy trait in his character is loyalty to his friends. He does not care to have many intimates; but those who have proved worthy of his confidence he trusts as he would trust himself, and he is ready to stand by them in any emergency. His kindliness has also been frequently shown toward men who had little more than a passing claim on his friendship, many of whom he has assisted to fortune by an opportune word of advice. The same trait is displayed in his private charities; not a few old employés or acquaintances of his earlier days are the recipients either of his bounty or of some sinecure office by which they are enabled to pass their last years in ease and comfort. The tone of appreciation and friendly respect in which his employés refer to him is very noticeable.

Another characteristic, and one which we would hardly expect to find in a man so largely absorbed in business, is his sensibility to the artistic and beautiful; and yet the evidences of this characteristic are numerous and patent, even to a stranger. No one can visit the Santa Anita rancho and view the fairy-like place which he has fashioned, without being convinced that the man who created this idyllic home must have other elements in his nature than those of the mere utilitarian and money-maker. The very trees that he has planted about the door in memory of his old home in the east show his susceptibility to the finer feelings of humanity. The Baldwin hotel and the character of its decorations are also evidences of greater force, for everything in the interior arrangements, down to the drapery in the parlors, and the frescoing on the walls, was chosen and superintended by himself.

Mr Baldwin is extremely sensitive to the influence of music. He is the owner of no less than fourteen or fifteen pianos, one in each place where he spends a portion of his time. At his rooms at the hotel there is one always standing open, and the music at hand with which he loves to be entertained. Any one who has seen him reclining on the sofa, his thoughts on important matters, involved in the conversation, while his little girl toyed with his hair, might form some conception of a phase in his character that he would not otherwise suspect, and thus get a better view of the kind-hearted father and devoted husband.

I wish to describe Mr Baldwin, neither as his enemies decry him nor as his friends extol him, but exactly as he is—neither as a demon nor a demi-god—but as one whose qualities are not unalloyed with the common failings of humanity, especially with such as might be expected in a man who has fought a rough-and-tumble fight with the world for wellnigh a half-century. When fully roused he is a strong fighter, and is apt to prove himself a strong and bold winner. He is also a good hater when injured, and though he does not readily forget a wrong, he never nurses his wrath; nor would he, after his anger has cooled, avenge an injury. Neither is there anything treacherous about him; he does not deal in ambuscades, or assail his enemy behind his back. If he must attack he will walk straight up to his foe and strike him in the face, prepared to receive blow for blow. He was never known to run away; but he does not assume the offensive, unless forced to do so in order to protect his interests. When he encounters obstacles he tries to remove them quietly; but if he sees that he must fight to remove them, he does so with a force and vehemence that carries all before him.

Mr Baldwin takes pride in the fact that he has never been under an obligation to any man. He has been the creator of his own fortunes, making the circumstances and controlling them. He possesses in an eminent degree what has been termed the genius of observation, he sees, more clearly than most men, both the advantages and disadvantages of a proposition; he looks far ahead, and detects possibilities where to others all is blank. Therefore, being a man full of restless, nervous energy, always alert, always looking for an advantageous opportunity for accomplishing some new project, and when he perceives it, carrying it to completion with a concentration and strength of effort that, like faith, can remove mountains, it is not singular that in his undertakings he has met with almost uniform success.

If we look for the key-note to a career which has marked him as one of the most successful men of his day, we shall find it, not in his good fortune, but in the strength of will that laughs at the caprices of fortune, that has turned even fortune's frowns to his advantage. Strength is indeed the most noticeable trait in his character; when he devotes himself to a purpose he does it with all the determination and perseverance that man can bring to bear, never becoming discouraged and never admitting the possibility of failure.

In the industrial activity of the state his personal force has been widely felt; and, measured by its results, his work will bear comparison with that of any among the founders and builders of our commonwealth. Fertile in ideas, he is equally ready with expedients to put them to practical use. Ceaselessly planning, his projects take form at once in material creations, and grow ever wider and deeper with the exercise of his abilities. Highly vitalized in mind and body, he is one who loves labor, not only for its fruits, but for itself, and to few have been granted such capacity for severe and protracted toil. No wonder that he has been for years the centre and inspiration of some of the leading enterprises conceived by his own intelligence, and built up by his own untiring energy. For men of more sluggish temperament it is difficult to appreciate the capabilities of one with his highly strung nervous organization, one in whom habit has confirmed the tendency of his nature, has given to him the power of concentrating his faculties to the utmost limit of tension. Possessing this gift, he is able to focus his entire strength on whatever he may have on hand, and then to turn from it instantly and devote himself to another and foreign task, without the least trace of embarrassment.

There are men distinguished for their ability to plan, but without the faculty to execute; there are others who can execute but cannot devise. With Mr Baldwin, thought and action appear to be blended, as though the energy out of which the idea was born entered with quickened force into that which he undertook. Not least among the secrets of his success is this faculty of becoming absorbed in whatever, for the moment, commands his attention. When thus at work he forgets all else, is dead to all else, putting aside or overcoming obstacles by the very intensity of his concentration, and never troubling himself as to the opinion of others on questions which he deems fairly within his own province. Once seeing his way clearly, he never rests until his plans are converted into accomplished facts, and in doing so displays an independence of thought and character that verges almost on the sublime.

When we bear in mind the magnitude and variety of the undertakings in which he is interested—the Baldwin hotel, the theatre, the Tallac house, the Arcadia, the Santa Anita estate, the winery, the dairy, the orchards, the studs, the Bear valley lands, the irrigation projects, the mining property—when we remember that everything which he has done has been on the largest scale, we cannot but wonder at the curious fate which has caused to be held in honor so many smaller men, some of whom have done nothing of importance, nothing of benefit to humanity, who are merely the accumulators and absorbers of the fruit of other men's toil.

Yet, with all these vast undertakings, he is never at the limit of his ventures, but is constantly branching out into new enterprises. At this moment he has in view a number of extensive projects. One is the formation of a company for the manufacture of beet-sugar on the Santa Anita rancho, where he intends to set apart 5,000 acres for the purpose. He believes that portions of the estate are specially adapted to this industry, which, he thinks, will rapidly develop, requiring the labor of a large number of men, and furnishing a large quantity of sugar for exportation to the east. In Kern county Mr Baldwin is interested in two new projects, one for bringing in a supply of water for irrigation, and thus opening up a vast section of land of the best description for horticultural purposes; the other for planting an extensive tract, in which he is interested, with oranges, olives, and other fruits. He has also a large share in two new inventions, not yet patented, one called a whispering telephone, and an appliance of great prospective value for intensifying the sounds transmitted over the wire, whereby it will be possible to conduct a conversation in a whisper; the other an appliance for switching, by which one man will be enabled to do the work of forty or fifty. These are partly his own designing.

Notwithstanding all his great and varied projects, and the immense amount of time and labor required for their superintendence, it is surprising to observe how easily Mr Baldwin carries himself. Although he usually rises at six or seven, and devotes all the best hours of the day to business, yet he can absolutely separate himself from his work when he so desires. While in the midst of business at home, he can start for the east at a day's notice, and during his absence be untroubled by the cares he has left behind him. Of late it has been his custom to refuse to talk about business after seven in the evening, and with few exceptions he adheres to this rule, dismissing all such matters completely from his mind, and resting at night without allowing any thought of them to disturb him.

In all his habits he is temperate, and while he appreciates the good things of this life, is not a free-liver; in fact he could not be so, for this would be death to him and repugnant to his instincts and business methods. In a word, his self-restraint and self-poise are so firmly established as to have become a dominant feature in his character, influencing even the minor details of his conduct. He is, moreover, a constant reader, perusing the daily journals with a critical eye, and keeping himself thoroughly *en rapport* with the current topics of the day. When in the country he spends much of his time in driving. At his Santa Anita estate he has some twenty different styles of carriages, and is himself a good four-in-hand driver. But the recreation that he likes best is to strike over the hills on foot, with his gun on his shoulder, and hunt all day. Besides being a good shot he is an excellent walker, capable, indeed, of tiring almost any one who accompanies him.

In his political views Mr Baldwin is a republican, and a thorough advocate of protection, though believing that, while free trade would ruin this country, certain articles have been protected too much. "I would have everything that is produced in this country free from taxation," he says, "and the United States under that system has prospered as no other country has ever done. But I would so regulate the tax on imports that our manufacturers should not have greater protection than is wholesome." As to foreign immigration he is of the opinion that it has already reached its proper limit, and that the lands still unoccupied should be kept in reserve for our growing population. He considers that if the foreign element should continue to increase for the next ten or twenty years in the same ratio as heretofore, it would constitute a serious danger to the country, and overtax its power of assimilation.

On the Chinese question his views, derived largely from the results of his own observation, are worthy of being quoted in full. "I think," he remarks, "they have been thus far an advantage to California. You may take, for instance, my experience in farming. I have helped to improve and develop the possibilities of the country ten years ahead of what they would have been if I had been dependent on white labor. Now my ranch is a benefit not only to California but to the whole United States, for any one who will plant orchards and vineyards is a public benefactor. I could not have brought it to its present state of excellence without Chinese labor, for the reason that white men in California, having been used to receiving $4 or $5 a day in the mines, won't go to work on a ranch for a dollar or a dollar and a half a day. That is one of the reasons why white labor in this country has not been such a success as it ought to have been; but I believe that the time has come to restrict Chinese immigration. I would not say that we should send all the Chinamen we have out of the country now, for if we did so we could not take care of our crops; we would lose a good part of them. It is a common saying that if you discard Chinese labor you will have plenty of white labor; but if the Chinese labor were stopped, it would be seen that there was not enough white labor. I know that from experience. We hire anybody who applies for employment at my place; we never turn a man away, for we need all we can get; and yet we have not only lost a large quantity of grapes the last few years, simply because we could not get any one to take care of them, but last year from the same cause we lost one fifth of all the crops on the farm. I have told my manager that I won't have things that way again, and we are trying to provide against the recurrence of such loss. I have discharged my Chinese several times, and tried to get along with white labor, but I always had to go back to the Chinamen, and probably one third of the labor on the place is now Mongolian."

With regard to religion Mr Baldwin is a disciple of Robert Ingersoll, whose views fully coincide with his own, "expressing his faith," as he says, "as well as he could express it himself." He would permit no religious teachings of any kind in our public schools and would keep the government absolutely free from all religious bias; in support of his views he points to such countries as Spain and Russia, whose backward condition is largely due to the pernicious influence of priestcraft. Nevertheless there is no stronger advocate of the cause of education; no one who is more in favor of providing the best schools that can be built and the best teachers that can be secured.

Since 1865 he has been a member of the society of Odd-fellows, and belongs also to that of the Red Men, his standing in both these orders being of the highest. For charitable purposes his contributions have been on a liberal scale, yet always with discretion, for to give indiscriminately he considers worse than a waste of his possessions. But the greatest of all his charities has been his work itself, for his enterprises have ever been of a creative and beneficent character. While himself leaning upon no one, planning and directing, as I have said, even the execution of details, his enterprises have been to thousands of his fellowmen the source of a comfortable livelihood, have afforded them the means of making their own way in the world, manfully and independently. What California owes to him directly and the human race indirectly will never perhaps be known; but from the time when he worked as a struggling youth on his father's farm, until to-day he controls, as a millionaire, one of the largest and most productive estates in all the rich valleys of the golden west, his life has been of sustained and substantial usefulness. His career has indeed been a remarkable illustration of what can be accomplished by hard, practical work, by the sheer force of energy and intelligence, unaided by any special advantages of fortune or education. There are on this coast some wealthier men than Elias Jackson Baldwin, and not a few who have won for themselves a larger share of that worthless bauble known as the world's applause; but there is no more striking example of what can be accomplished by the will power and capability of a strong, self-reliant man.

CHAPTER XII.

LIFE OF HENRY MILLER.

Ancestry and Parentage—Early Career—Removed to California—Start in Business—Miller & Lux—Ranchos—The San Joaquin and Kings River Canal—Live-stock Interests—Political Views—Wife and Family—Physique and Characteristics—Summary of Career.

"Consummate men of business," it has been said, "are as rare almost as great poets—rarer perhaps than veritable saints and martyrs." There has ever been a large aggregation of business ability on the Pacific coast; and this not only in the ranks of commerce, but in all the industries that tend to build up a commonwealth. There is hardly a branch of enterprise in which there is not some undertaking world-famous for the boldness of its conception and the magnificence of its plan; so that he who would know the utmost that can be accomplished by the energy and intelligence of a single generation must study the annals of this western America. Here will be found the largest gold mines, the largest wheat farms, the largest vineyards and orange groves, the largest dairies, and some of the largest sheep and cattle ranchos in the world. In all these branches of industry has appeared some guiding spirit whose enterprise has marked him as preëminent among his fellow-men. Such are H. J. Glenn the wheat farmer, Charles Webb Howard the dairy farmer, and such is Henry Miller, to whom is conceded a preëminent place as a stock-raiser.

Henry Miller.

Mr Miller is a native of Brackenheim, in the kingdom of Wurtemberg, his birthday being the 21st of July, 1828. In this portion of Germany, one of the fairest spots in the fatherland, his ancestors resided for many generations, his father's calling being that of a butcher and dealer in cattle, while his forefathers on the mother's side were vintners. Here also he received his early and indeed his only education, attending school from his seventh to his fourteenth year, though, as he relates, since the age of eight he earned his own livelihood, the assistance which he rendered to his father being, even then, sufficient to offset the expense of his maintenance. At school he was noted for a singular aptitude for figures, for an excellent memory, which his threescore years have not impaired, and for his ready answers to the questions put by his teacher or by the minister of his church. On this period he does not, however, look back with unmingled pleasure, for from childhood he was intent on business and somewhat impatient of control. He chafed under parental training, and the severe labor exacted marred the recollections of boyhood.

From the calamities of war and pestilence which visited this region between 1740 and 1750, the people of Brackenheim had fully recovered, and were in the days of Miller's childhood a prosperous and contented community, but differing somewhat in customs and habits from the people of to-day. The land supports a dense population, the towns being separated by intervals of not more than a mile, each with its own associations and ideas, and its own dialect. Many of the inhabitants were exiles from France, and built up settlements of their own, though afterward they became identified with the Germans. In former years the Jews were excluded from all but a few localities, while to-day they control many of the most profitable branches of business. Between protestants and catholics, also, there is little intercourse, except such as is required by the exigencies of trade, while people of all classes and creeds are divided into cliques and guilds, and apart from their own circle, little given to sociability. With them a man of the Miller stamp could not assimilate; and yet he retains a certain affection for the land of his nativity.

The Germans are energetic and progressive in commerce as well as in science. Of this natural trait young Miller partook, and became directly an earnest factor in business. When twelve years of age, he would journey through the towns, as is the custom in that country, in search of young cattle; he would buy a sheep or a goat, and drive it to his father's butchering place. In that country an apprentice was required to prove his proficiency before being admitted as a journeyman, and was then required to serve seven years before he could be a master-butcher; there the occupation comprised all the branches from the slaughtering of the animal down to the making of a fiddle-string. Young Miller, restless and wrathful, did not like the prospect. For his first year's work he received ten Prussian dollars, from which he provided his clothing of homespun, doing his own washing and mending. Soon afterward he removed to Holland and thence to England, whence in 1847 he came to New York, his object in making these changes being solely to better his condition. Arriving in that city when nineteen years of age, he went to work in a garden for four dollars a month and his board. Then he obtained a place as pork-butcher, his duties being to dress hogs in the afternoon, and in the forenoon to attend to one of his employer's stalls in Washington market. Working for sixteen hours a day, he received as compensation eight dollars a month, and as a perquisite the intestines of the slaughtered animals, which he sold for about a dollar a day, saving most of his earnings, and thus accumulating sufficient to pay his passage to San Francisco. In taking this step, as ever before and afterward, he was guided solely by his own judgment, never depending on others for advice or assistance, for in his opinion a man who cannot rely on himself seldom achieves success.

On reaching Panamá he was attacked with fever, and for three months lay sick in a private hospital. But for this incident he would probably have remained at the Isthmus, where at that date the opportunities for making money were favorable. Arriving in San Francisco, then consisting of four or five streets, most of the inhabitants living in tents or huts, he started forth to seek his fortune, with six dollars in his pocket as the sum total of his worldly effects, but without any misgiving as to his future. He was destined to prove a money accretion; whatever his store of wealth might be, it was foreordained to increase. He first engaged himself to a Frenchman to butcher sheep at the head of Dupont street. He remained there for two months, working for small wages, doing his own cooking, and only on occasions allowing himself the luxury of a meal at a Chinese restaurant. For this the charge was one dollar, the fare consisting of a tough steak, a single potato, and a cup of muddy coffee.

After the fire of June 1851, he resolved to launch forth for himself, and leasing a lot on Jackson street between Dupont and Kearny, erected thereon a one-story building, which he furnished with a block and a few hooks, having a surplus of $150 in cash after paying for his premises. With this sum he purchased a number of calves, and slaughtering them in his shop and packing them on his back, some to Clark point and others to North beach, disposed of them to the retail butchers. At first he depended for his stock mainly on purchases made at the water front, though sometimes scouring the country in search of hogs and sheep, and buying one or two at a time, as occasion offered, for at that time pork was fifty cents a pound, and often could only be had at his stall even at that price. From the slaughter-houses he also purchased brains and kidneys, with which he furnished his French customers, together with the meat that he supplied to them, and so retained their patronage. Thus little by little his business increased.

Thus by throwing into the work an acute mind and ardent soul, by close economy and strict attention to business, making each dollar the parent of ten dollars, each day's work equivalent to three of the hireling order, he increased his capital of $150 far into the thousands, and was enabled to enlarge his sphere of operations, to take advantage of the market, and to establish himself as wholesale butcher. In 1853 he purchased from Livingston & Kincaid a herd of 300 prime American oxen, paying for them $33,000, a larger sum than any other butcher in the city could then command. These he sold by wholesale at 18 to 20 cents per pound, their average weight exceeding 800 pounds; and thus realized from his venture a large profit. This was the first band of American cattle ever driven to the San Francisco market.

In 1857 he purchased a band of cattle in partnership with Charles Lux, consisting of about 1,600 head of large Texas steers. This transaction grew out of a proposal made by Lux, with whom he had at the time only a speaking acquaintance, the price agreed upon being $67.50 per head, each partner paying one half the purchase-money, and the proceeds of the sales being equally divided. Thus arose the firm of Miller & Lux, though it was not until a year later that the partnership was consummated. In the spring of 1858, Lux having, as he thought, money enough, disposed of his interest and went east. But changing his mind, he returned in September, and proposed to Miller to join him in the purchase of cattle with a view to holding them for an advance. To this the latter agreed, and on the following day bought nearly two thousand head, which were pastured on rented land. Of this partnership it may here be mentioned that it continued for more than a quarter of a century, or until the decease of Mr Lux, to whom was mainly intrusted the management of the city trade, though to Mr Miller was always conceded the general control of affairs. Apart from their business relations, they had little in common, for they differed widely in tastes and habits, but there never arose between them any serious disagreement. Each retained his own capital, and to a certain extent his own landed estates, though most of their property was necessarily held on joint account.

The first large investment in land made by Miller on his private account was the Bloomfield rancho, in the neighborhood of Gilroy, consisting first of 1,700 acres, but increased by subsequent purchases to 13,000 acres. This was selected as a suitable rendezvous for bands of cattle on the way from the southern counties, being well watered, with excellent pasture, and within easy reach of San Francisco. The property became very valuable; in 1887 a few ten-acre tracts were sold to people from the east at $150 an acre, with a view to encourage settlement, while for some portions $500 an acre was paid.

In this connection, it may be of interest to state, as to the future values of country and city lands, the views of such a man as Miller. "The area of good land in California," he says, "is limited; but to the vastness of her future population there is no practical limit. At present the state is sparsely settled, of the arable land little more than one-tenth being under cultivation. A small holding of good land is sufficient to support a family, and nothing can prevent the state from becoming eventually the most densely populated section of the union. Thus no one can foretell the prices that land will reach. As yet the people of California know very little of the resources of their state, but the time is near at hand when they will learn to appreciate them." As to booms, he considers that they are beneficial only in compelling those who have purchased at inflated prices to improve their land in order to make it profitable. San Francisco he believes to have as bright a prospect as any city in the United States, and though its prosperity may for a time be retarded, its future is fully assured.

The first large purchase of land on partnership account was the Santa Rita rancho, on the San Joaquin river, now termed the home farm, and the principal rendezvous for stock. It consisted at first of 8,835 acres, for which was paid the sum of $10,000 for the land, and $5 per head for 7,500 cattle. This is indeed profitable employment, buying land at $1.25 an acre, and selling it shortly afterward at $500 an acre. To this other sections were added as occasion offered, until the entire grant of 48,400 acres was acquired, the average price being about $4 an acre. A single glance at this property, with its central location, its level surface, and its rich pastures, was sufficient to satisfy Mr Miller that no better site could be selected for his purpose. Other tracts were bought from time to time, for, with his increasing herds, a larger range was needed, and sometimes it was even found necessary to pay for grazing lands a rental of nearly a dollar an acre. In what was then Monterey and is now San Benito county, two Mexican grants were purchased, comprising the Tequesquite and Lomas Muertas ranchos. For several years they had been leased by the firm, and as Miller relates, their rental cost him more than was afterward paid for the property itself.

These cattle-men did not escape uninjured from the drought of 1864. At that date, in common with the whole country, their ranges were somewhat overstocked; they lost two thirds of their animals, and throughout the state there was a wide-spread feeling of depression, and a desire to dispose of their interests, though few of them were able to do so.

Later, lands and stock appreciated in value, the latter rising from $10 first to $20, and then to $40 and $50 a head. From 1864, with the incoming tide of population, the surrounding country was settled, free ranges were no longer to be had, and it became necessary for cattle-men either to reduce the number and size of their herds or to increase the area of their farms. Miller & Lux preferred the latter, and gradually enlarged their possessions, as means and opportunity allowed, until they became the owners of 750,000 acres, located in eleven different counties in California, having also large tracts in Oregon and Nevada.

In sheep-raising the firm was largely interested, having on their various tracts some 80,000 head. Each year they purchased many thousand wethers, which were fattened for the winter market, the number herded for this purpose in 1888 being from 18,000 to 20,000. Mention must also be made of their interest in the irrigation problem, as illustrated by the organization of the San Joaquin and Kings River Canal and Irrigation company. Beginning at a point six miles south of Firebaugh ferry, their canal extends in a northwesterly direction from Fresno slough, almost parallel with the western bank of the San Joaquin river. Its total length is 78 miles, and for most of that distance it is on their lands. For the first 38 miles it is 68 feet wide at the top and 45 feet at the bottom, and for its remaining length 53 and 35 feet respectively. There is also a side-canal of 28 miles, whereby the capacity of the larger work is increased for a portion of its extent. For the first forty miles the drop is one foot to the mile, and for the remainder six inches, the slope of the land between the canal and the river varying from 10 to 15 feet down to zero. There are hundreds of miles of cross-ditches, and it is estimated that here is water enough to irrigate 100,000 acres, though with the present rates of labor, only the speediest and cheapest methods of irrigation are practicable, and hence a large amount of waste is unavoidable. For grain-lands the charge is from $2 to $2.50 an acre, and for lands sown with alfalfa, of which in some locations three or four crops a year are produced, the charge is $2.50 an acre. The farmers are supplied with unfailing regularity and with all the water that they require, and thus a large area which was before a barren waste has been converted into a most fertile region.

The work of construction was begun in 1871 and completed two years later, Miller being one of the first stockholders, though it was not until 1876 that in self-defence his firm acquired the control. In the mean time no dividends had been declared, while assessments were regular and constant. The company tried, moreover, to break its contract, in connection with certain privileges granted to Miller & Lux for right of way through their lands, and for the subsidy of $20,000 paid by the firm. This would, of course, have involved a lawsuit had not the control been secured. Although it is only in dry seasons that the venture is profitable, and large sums have been expended in improvements and repairs, dividends have since been declared, but not as yet of large amount.

Though urged by his partner to venture a portion of their surplus wealth in other investments, as in bonds and stocks and city property, Miller refused. "They were not fitted," he said, "for a business of that description. They must place their money where it had to stay, and where it could not be taken back again, while at the same time it returned them a sufficient revenue. Town lots might improve in value, or they might depreciate, while country lands can always be depended upon, and will never be a burden on our hands." To the fact that he invested in his business the profits which it produced, increasing its value year by year, and devoting to it his whole attention, undisturbed by outside speculations, is largely due his phenomenal success.

The mildness of the winters on portions of the Pacific slope is especially favorable to the growth and maturity of domestic animals, and nowhere do they multiply more rapidly than in the sheltered valleys of California. It is estimated that there are in California about 1,000,000 head of neat cattle and some 10,000,000 of sheep, the product of wool, butter, cheese, and milk being valued at $30,000,000 a year. In a country where meat is taken at almost every meal, the consumption is large, that of San Francisco being 150,000,000 pounds a year, or 500 pounds per capita of the population, though of this quantity perhaps 10,000,000 pounds are packed for exportation. To supply that city are slaughtered annually more than 150,000 beeves, 20,000 calves, 1,000,000 sheep, 250,000 lambs, and 200,000 hogs, in addition to poultry, game, and fish. If good living is, as some believe, conducive to morality and virtue, then the citizens of our western metropolis should be of all communities the best and purest.

As to the number of cattle and sheep owned by Miller & Lux, it is hard to form a conjecture, for among their vast herds a few thousands more or less signify but little. In 1888 the former were estimated at 100,000 and the latter at 80,000, while for several years their sales of meat averaged $1,500,000 a year. In 1881 they supplied the San Francisco market alone with no less than 83,332 animals, including 12,818 steers, 2,682 cows, 6,564 calves, over 32,000 sheep, 21,202 lambs, and 7,631 hogs. To conduct this business, including farming operations, required the services of from 800 to 1,000 men, while, as already stated, their grazing lands comprised 750,000 acres, their area being almost equal to that of the entire state of Rhode Island.

Thus did Henry Miller, who landed in San Francisco in 1850 with a capital of six dollars, acquire an estate valued at more than twice that number of millions. To his persistent and well-directed efforts, his close attention to detail, his strict economy, and his foresight and judgment in taking advantage of opportunities, though always avoiding the risks of speculation, is due the marvellous success of his firm.

After the drought of 1864, for instance, when throughout the middle and southern portions of the state the only pasture to be found was in the tide-lands of Suisun bay, at the mouth of the Sacramento and San Benito rivers, he purchased a large quantity of stock at from $8 to $10 a head from men who were willing to part with the remnant of their herds at any sacrifice. None understood, morever, better than he what may be termed the economy of stock-farming. If, after cattle had been grazing in his fields, anything was left that sheep would consume, there sheep were pastured. If on any of the farms there was offal suitable for the feeding of hogs, there hogs were kept. If the men engaged in tending the herds were not fully employed, their surplus time must be given to farming. Employés were selected with care and kept under strict discipline; land was purchased only after a careful consideration of its capabilities, and was never overstocked, the sheep and cattle being of superior grade. If any department proved unprofitable, a careful investigation was made to see whether the fault lay with the manager, the system, or the land itself.

In politics a republican, Mr Miller, in common with most thinking men, is opposed to universal suffrage, being in favor of a moderate property qualification as the best means of excluding the undesirable class of voters. He is also an advocate of protection, because it tends to insure high prices for labor, which he deems an advantage to the country. Under this system the nation has prospered, and he thinks a change in the direction of free trade would be of doubtful benefit, and might work injury to the community. As to the Chinese, he considers their presence in our midst a necessary evil. If all our people would work, they would no longer be needed; but our boys and girls, who should take the place of Mongolians, have not the application necessary for sustained labor, and their services cannot, as a rule, be depended upon.

In religion he is a protestant, as were his forefathers, and if not a church-going man, is in the best sense of the word a moral man. Though not a member of any benevolent association, he never declines to aid such organizations when he considers them worthy of support. As with societies, so with individuals; in no case does he refuse assistance to those who are needy and deserving. While among the latter his bounty is frequently misplaced, he considers himself fully repaid if only one out of twenty is thereby saved from want or crime. Many are those who in early life have been indebted to him for their support and education, among them fifteen of his nephews and nieces, and a number of the children of his own employés. Though charity begins at home, and so often breeds ingratitude, mankind cannot afford to forswear it, as its devotees are sometimes inclined to do.

While thus affording to others the means of acquiring an education, he himself sets but little value on such knowledge as is acquired at schools and colleges, believing that a practical training is of greater benefit. The tendency of the age is, he considers, to over-educate, to cause young men and women to despise hard work, and to live, if possible, without it. Most of the leading men of to-day have come, as he justly remarks, from our farms and workshops, from homes where toil and scarcity were ever-present guests, and have succeeded in life by imitating those who have been most successful, thus shaping their own career, free from all humiliating dependence on others. The youth who has mastered a trade need never place himself in this position, for he has in his own hands the means of earning a livelihood. On the other hand, there is no more pitiful specimen of humanity than that of a college graduate fresh from the lap of his alma mater with barely the modicum of knowledge, which renders more dangerous his presumption and conceit, and unskilled in any craft or calling that can avail him in the struggle of life.

In habit Mr Miller is abstemious, eating to live, drinking moderately of tea and coffee, his favorite beverages being water and milk, never taking spirits except as a medicine, and only on occasions a glass of wine. In this respect he is a follower of John Eliot, the Indian apostle, who was a water-drinker, and who said of wine: "It is a noble, generous liquor, and we should be humbly thankful for it, but as I remember, water was made before it."

In 1858 Mr Miller married Miss Nancy Wilmot Sheldon, a sister of Mrs Charles Lux, and some thirteen months after her decease, in 1860, wedded her niece, Miss Sarah Wilmot Sheldon. Of their two surviving children, the daughter, Nellie Sarah Miller, became the wife of J. Leroy Nickel. Their son, Henry Miller junior, is a young man about twenty-four years of age, whose career in life has not as yet been determined. His city residence is on the corner of Harrison and Essex streets, one of the old landmarks of San Francisco, and occupied by several men of note before it passed into the hands of its present owner.

In physique Mr Miller is a well-proportioned man, somewhat above medium height, with a light complexion and brown hair and eyes. What strikes the observer in his appearance is the expression of power, both of mind and body—the power to assert his individuality and make his way in the world in the face of obstacles. In address he is quick, incisive, and forcible, with rapidity of utterance, stating his views in clear, concise, and simple language, every word of which goes straight to the point. Thus in a few moments he despatches business affairs of the greatest importance, and involving the most complex questions, with as much coolness and precision as if disposing of the titular dignitaries of the chess-board. One of his most remarkable characteristics is his memory, which extends not alone to events, but to persons and dates.

He can tell, for instance, not only the year and month, but even the day and hour, when he concluded a bargain for a band of cattle purchased more than a quarter of a century ago, giving not merely their number and price, but a description of the men with whom the transaction was made, all being as clear and distinct in his mind as at the moment when the sale was consummated. His whole soul has ever been engaged in this work; once an impression is stamped on his brain, it is never entirely defaced, and thus he has accumulated a vast fund of useful experience which he does not fail to turn to account.

He has ever been a hard and constant worker; as he says, his day's work consists of twenty-four hours, or as much of it as may be required for the transaction of his business, for until that is completed he never retires to rest. Like many others who are possessed of an active brain and burdened with a multiplicity of cares, he is troubled with insomnia, but is nevertheless an early riser, his usual hour being five o'clock. To such a man, without the constant exercise of his mental and physical powers, life would be a burden. "Most men," remarked Dr Johnson, "are never happy except when they are asleep," but of many Californians it may be said that they are happy only when at work. For more than a third of a century Henry Miller never allowed himself a single day's recreation, and when in his sixtieth year he could accomplish more than a dozen ordinary men. Often at the end of a day's business he has been known to ride after nightfall forty or fifty miles, in order to fulfil an appointment for the morrow, and though he should ride all night he would not fail to keep an engagement.

In his intercourse with his employés he is considerate, though for the control of his vast army of subordinates the strictest discipline is necessary. Some of his more experienced and trustworthy foremen he admits into his confidence, and with most of them he consults from time to time, listening to their plans and opinions, indorsing them if they meet with his approval, or explaining clearly wherein he differs from their views, and giving them distinct and definite instructions. If in a single instance an employé should fail to carry out these instructions, he is immediately discharged, though should he, by obeying them, cause the firm to suffer loss, he is nevertheless commended for his faithfulness.

A. L. Chandler

CHAPTER XIII.

LIFE OF AUGUSTUS LEMUEL CHANDLER.

The Study of Nation-Making — Chandler's Ancestry and Early Life — Personal Appearance and Principles — His California Experiences — Family Matters — His Political Career — The Mining Debris Question — Public and Private Benefactions — His Last Days.

There is no better or wider field for research than that in which are laid bare the processes whereby nations and states have attained their development. Such a study, coupled with a just recognition of those whose labors made these results possible, is at all times gratifying to him who would study aright the annals of a commonwealth. We, who have the good fortune to dwell in California, a land so bountifully favored by providence, and whose advancement, within little more than forty years, in all the elements of wealth and greatness challenges the admiration of the world, feel not only a just pride in this wondrous march of improvement, but also recognize the debt of gratitude we owe to the men whose counsels and efforts have brought it to pass, laying at the same time solid foundations for still further progress and greatness.

It is, in truth, a most grateful task to rescue from oblivion and make known to the present and coming generations the merits of such men, in order that the services they rendered, each in his own special sphere, should be duly appreciated and remembered. California has been justly called the new El Dorado, the golden state ; and yet, all the wealth in precious metals of her placers, river bottoms, and mountains, must take a second place when compared with her agricultural products, for these are the solid foundation of wealth for countless generations. Among those who have helped to lay this foundation is Augustus Lemuel Chandler.

Sprung from a sturdy ancestry of New England farmers, Mr Chandler was born on the 26th of July, 1831, at Johnson, Lamoille county, Vermont. His pedigree can be traced back some eight generations, to William and Annis Chandler, who were landed proprietors in England, and leaving that country in 1637 brought with them four children, and settled themselves at Roxbury, Massachusetts. In the history of that town it is recorded that none can boast of a more honorable ancestry than the Chandlers, who are descended from that oldest of puritan stock.

Mr Chandler's father, Lemuel, was a farmer by occupation, and having the misfortune to lose his wife when Augustus was but two years of age, was left with a family of eight children, his oldest daughter, then only fourteen, keeping house and taking charge of her brothers and sisters. As for a time it was found difficult to keep the little flock together, Augustus was placed in the care of an aunt, and at the age of six was admitted into the household of a distant relative, named Freeman Walker, a farmer of Strafford, Vermont. Here for the most part he remained until he came west, attending the public schools, and afterward himself teaching school in winter and working as a haymaker in summer. It appears, however, that at some time in his boyhood he became a member of the family of Senator Morrill, of Vermont, who, while on a visit to California a few years ago, sought out his former protégé to congratulate him on his success.

Although Mr Chandler never enjoyed the advantage of a college education, by constant reading of books on serious subjects, as history, biography, political economy, as well as of the ablest newspapers and current literature, his mind became stored with useful knowledge, which, together with the discipline acquired by studious and industrious habits, was to him a pillar of strength throughout his career. He proved himself at all times a true friend of education, and built, mainly at his own expense, on his own property, the school-house in his district, partly for the benefit of his own family.

Mr Chandler is said to have been rather slender in his younger days, though enjoying excellent health. In the first years of his manhood, he was about five feet ten inches in height, and probably weighed 160 to 165 pounds. He had a full face, broad high forehead, strongly marked features, with expressive eyes and mouth ; the hair red, and face somewhat freckled by exposure, particularly in the harvest season. In later years, however, he became fleshy, weighing from 225 to 240 pounds; the hair gradually changed to a darker color, the face lost its freckles, and he was a fine specimen of manhood, with a countenance that then, as ever before, inspired confidence at first sight, with a pleasant and genial manner, a jovial disposition, and a cheerful and sanguine temperament. In dress he was plain and neat ; in carriage erect and dignified ; in habits simple and abstemious, departing not from the customs to which he had been trained in his New England home. The practice of drinking to excess was abhorrent to his nature ; and during the time when drinking and gambling were so widely prevalent in California, he was never known to indulge in either of those vices.

It was in the latter part of 1851 that Mr Chandler was seized with the fever that carried away so many younger and older men to seek their fortunes in the land of gold ; but having no money at command he one day walked seventeen miles in a heavy snow-storm to procure a life insurance on which he might raise a loan to cover the expenses of his journey to California. This accomplished, he bought a passage, and embarked in February, 1852, for Panamá, where he sojourned for some weeks, and then joined a party of about 180 persons, all embarking on an old whaling brig bound for San Francisco. The fates were against the voyagers, for after being 55 days at sea, they were wrecked some miles below Acapulco. About the same time was occupied in the voyage from that port to San Francisco, for the ship was becalmed, and for several weeks, while sweltering in the heat of the tropics, the passengers were allowed only half a pint of water a day. Once only there came a shower of rain, when all who were able came on deck, and with basins, pans, and whatever would hold the precious fluid, even with inverted unbrellas, caught what they could of the rain-water. Though some of it was almost black from the coloring matter in the umbrellas, we may be sure that this water was the sweetest draught that had ever passed their lips.

It is understood that Mr Chandler's first work in California was making hay somewhere on Bear river, and that he was afterward engaged in the freighting business, carrying grain and other provisions from the Sacramento valley to the mining camps. He was employed for some time as a school-teacher, the school-house being situated near the north end of the bridge known as Kempton's crossing. Even at that early age he displayed the keen insight for which he was always noted. From the first he saw that California was destined to become a great agricultural state, and the gold excitement which lured other young men to the mines was powerless to turn his attention from the rich lands of Sutter county. In 1855, or 1856, he and his brother Charles bought a squatter's claim to 540 acres near Nicolaus, and engaged in farming, mainly in the raising of wheat. Here he remained until the time of his death, at first meeting with many drawbacks and discouragements, as failure of crops, heavy expenses, and losses by fire, and making a success of his business only through the force of his own energy, perseverance, and good management.

For many years, except for such incidents, his life was an uneventful one, save that in 1860 he visited his old home in the east, and in April married Caroline Jane Noyes, a native of Orange county, Vermont, the newly married couple sailing together from New York on the 21st of May of the same year for California, and after a fair passage arriving at their home on the 13th of June. The union was of the happiest, and it is here in order to say a few words of her whose affection and sterling qualities made Mr Chandler's married life so peaceful and contented. Mrs Chandler's father was a native of New Hampshire; her people, both on the father's and mother's side, being New Englanders. By her marriage she had six children, named in the order of their birth, Carrie A., Annie L., Ida M., Lizzie F., Mary A., and Harry A., the only son, on whom was placed the highest hopes. The oldest daughter became the wife of A. J. Gladding, of Lincoln, California, a son of Charles Gladding, of the firm of Gladding, McBean, and company. The second was married to an eastern man, named H. L. Hatch, their residence being at Strafford, Vermont, where were passed the years of Mr Chandler's boyhood.

In her habits and tastes Mrs Chandler was essentially domestic, and never showed any inclination to interfere in her husband's business affairs. Her life was literally a part of his, and whatever he said or did was right. Never did a cross word pass between them, and never was a household more free from bickering and strife. The mother had almost the entire control of the children, who greatly respected their parents, and have all been well educated in the higher branches, and in music, the three youngest being still at school, and all having attended the best academies of Oakland, where partly for that purpose the family resided between 1883 and 1886. Like her husband, Mrs Chandler never made any formal profession of religion, but she was always fond of religious works and of strictly moral sentiment.

Mr Chandler was in every respect a representative of the best type of our agriculturists. Although he at times engaged in other occupations, such as that of lumbering, we must consider him as a representative husbandman, aside from his political life, and by him the general interests of the country were never overlooked.

It is now some twenty years ago since the various combinations in wheat, grain-bags, and freights first caused the farmers throughout the state to adopt measures for mutual protection, and everywhere were formed what were then called farmers' clubs. In this movement Mr Chandler was one of the guiding spirits, and with the grange interest of the entire state was always strongly identified. The state owed him much for his active work in the Yuba city grange, of which he was one of the promoters and charter members, withdrawing from that association only to join one nearer home. When in the spring of 1873 the farmers' state convention was held in San Francisco, composed of delegates from the local clubs, he took an active part in its proceedings; but its deliberations showed, more than all else, the necessity of incorporating the clubs if actual business were intended. Out of this grew the farmers' coöperative union, of Sutter county, and to Mr Chandler is due the credit of placing the stock, and the support which afterward made it a complete success Chosen one of the directors of the first election, he held that office until the day of his death. To his enterprise and judgment several of the unions owe their most successful operations, in the face of strenuous opposition on the part of rings and capitalists.

He was ever noted for the interest which he displayed in his section of the state, and showed his confidence by assisting every worthy enterprise. When the *Sutter County Farmer* was established, he became one of the principal stockholders, and stood nobly by its principles until the end. He was one of the strongest supporters of the *Patron* publishing company, and as a prominent granger remarked, "When the *Patron* was languishing for want of support and calling for help, brother Chandler was the one to come forward with his cheering words and financial aid, and largely through his assistance and encouragement our paper was saved from suspension." He was a shareholder in the Nicolaus Warehouse company, and mainly through his efforts the warehouse was built. He was also one of the projectors of the Sutter canning packing company, which has so greatly increased the reputation of his county as one of the choicest fruit-growing sections of the state, and has established there a home market, never before enjoyed. Of many other institutions ranking high in the state, he was one of the founders, maintaining his interest in them to the last. As a farmer and stockraiser he was very successful, and notwithstanding heavy pecuniary losses occasionally experienced, amassed a considerable fortune, which he left to his family, including about 1,500 acres of the richest land, with improvements of a most substantial character. The family residence thereon is a very fine and commodious brick dwelling, with extensive outbuildings in keeping, and all in excellent preservation.

In politics he was affiliated with the republican party, and having the confidence of his neighbors was elected from Sutter county to the lower house of the legislature in 1873, and served in it three regular terms and one extra session. In 1882 he was chosen by Sutter and Yuba counties to the state senate, thus representing the twelfth senatorial district during three regular and two extra sessions. Throughout his political career he exhibited a most watchful care for the interests of the people, and owing to his long service in the upper house was called the father of the senate. He invariably favored appropriations for the establishment and support of public institutions, and younger senators looked upon him as one whose course it was safe to follow. It may indeed be asserted without fear of contradiction, that no man in the state ever enjoyed a more implicit trust than that which the people reposed in him. During his long and successful legislative experience no breath of suspicion ever touched him, and he was one of those whom no one claimed to influence, while so many of his colleagues laid themselves open to the accusation of being the tools of schemers, whose aims were to plunder the people. Though a man of reserved and somewhat taciturn disposition, his utterances always commanded the respect due to experience, sound judgment, and power of observation. He possessed, moreover, the power of expressing himself with facility, and in such choice language that his arguments carried weight among his hearers, for his mental powers were of a superior order, enabling him to take the broadest views of public questions, and to master the problems by which they were surrounded.

While a republican, he held broad and liberal views on all public questions, and never allowed himself to be swayed by prejudice. It is superfluous to say that he took a leading part in all the important questions that occupied public opinion, and were the subject of discussion in the legislative chambers; he was foremost as a legislator as in everything else; a leader especially on the part of the farmers, in both the assembly and senate, in fighting the mining débris question, one of the highest importance to the farming interests of the Sacramento valley. Perhaps his greatest triumphs were achieved during the closing days of his last session while opposing a bill for the impounding of mining débris. He forcibly objected to the building of dams in the mountain streams, on the ground that, if such dams were constructed, their waters would sooner or later deluge the valley, and slickens destroy the agricultural lands. Of the several speeches delivered by him on this subject, one in particular was justly pronounced a strong and sterling argument. As specimens of his reasoning and oratorical powers a few quotations may be of interest; but first it should be stated that his remarks turned partly on section two of the bill, wherein it was provided that no person or corporation owning or appropriating water for mining purposes, should have the right to run such water into any stream above these dams, until they had subscribed and paid for shares in the same proportion and on the same condition as other shareholders.

"I believe," he said "we have been accused, as farmers, of desiring to oppress the mining interest, to oppress the small miners, to oppress the quartz miners; to oppress the draft miners, to crush the surface miners, and I ask you whether this bill, coming from the miners, does not contain a clause that will stop every small miner above that dam? I wish that this bill could be heralded over the mountains, among the miners, in order that they might see what the large corporations that desire to form under this act intend to do with them. I affirm that if the bill be enacted the large corporations, most of them foreign corporations, will in a short time own and control the entire mining industry on the stream above these dams; for it would be impossible for the small miners to subscribe for stock. And if they could, I ask why should we provide a bill to force the small miners, or force the large miners, or force any man into a corporation? I do not understand that I am obliged to take stock in any corporation unless I see fit to do so. I do not understand that they can compel me to build dams in the mountains if it is contrary to my wish; but it is clear in this proposition that such is the intention."

Referring to the injuries caused by such dams and to the danger of living in the valleys beneath them, he continues: "These rivers are already charged with débris from 20 to 150 feet deep; these very rivers where they propose to erect the dams. That débris consists mainly of cobblestones, and the mass is constantly disintegrating and being carried down into the valleys. Now they propose to build on the top of these stones that have come down from the mountains where they had lain for ages, but when they are brought in contact with the air become slacked, so that the outside is continually crumbling away and turning into mud. If there is any man here who has ever seen the Sacramento river, or any other river where the débris has come down, he will recognize the truth of the expression 'that it came down in liquid waves of mud.' Why, sir, the water is absolutely destroyed for practical purposes in the Bear and Yuba rivers. It is so muddy at times as to be unfit for watering stock. You could not use it for irrigation; it is absolutely worthless to the people below, and whenever it rises high enough to break our levees, there is spewed out an immense quantity of sand and slickens over our land, thus covering it continually.

"There are some men — and I saw one in this senate yesterday — who if they could speak upon this floor, would tell you how they have spent thousands upon thousands of dollars to protect their lands; that they have been leveeing for years and exhausting their means in levees, which every now and then have been breaking and destroying their crops, washing away their fences, and drowning their stock. One of these men, sir, is C. P. Berry, of Sutter county, well known in every part of the state. I know his ranch; it is only six miles distant from my home, and while I am fortunate enough to be on the other side of the ridge, I see this slimy monster steadily creeping toward my own home. It will be but a few years before I am driven out, as I have seen hundreds driven from their homes, taking their all perhaps in a little two-horse wagon, going off to Washington territory or other places, and leaving as fine farms as ever man owned in the state.

"The finest land I ever saw was originally on the Bear river bottom and on the Yuba river bottom. Why, sir, I have seen these things, having lived there for thirty-five years. I have labored to rear my children and build me a home there. Do you wonder that I feel deeply, intensely, on this question? Do you think that I want these dams put into the rivers, that I am to live under their menace? I know that there is not a man in this valley, that there is not a man in my county, in the valley portion of either of the counties — and one of those which I represent is a mining county — who is in favor of constructing dams in the river.

"Do you think, gentlemen, that we want dams erected there to load up with millions of tons of this infernal slickens and débris, to come down upon us, as it will, at one fell blow, and sweep us out of existence? Sir, you may drive along the banks of Bear river, and as you pass you can see the tombstones covered to their tops in the burial grounds that were placed there years ago, and are now just visible above the water. Do you think that when I travel there and see the monument that I erected to my brother covered to within six inches of the top, that I do not feel that we are being destroyed?

"How can you come here and vote for a bill of this kind to license the millionaires and corporations which infest this state from foreign lands, to erect their hydraulic works, and drive streams of water through hydraulic monitors upon banks 300, 400, and 500 feet high, for a little stratum of pay dirt that could be taken out by the drifting process and give employment to ten men where they are working one now? Talk about it injuring the laboring classes if these hydraulic monitors were stopped; why the work is done with powder and with the force of water. When these clays are too hard to wash away with the vast streams of water that would knock down a building like this capitol in a few hours, they drift into them and put in thousands of kegs of powder and blast them off at one charge, loosening up the dirt. I say thousands of kegs of powder, because I have often heard of their putting in 2,500 and 3,000 kegs at one blast, and then pouring in water from their monitors by night and by day. I have heard many a blast ten or twelve miles away, and it is like an earthquake. I have been in these mines, illuminated by electric lights, with three or four monitors running upon a mountain, washing day and night this base material down upon the valley lands."

In conclusion he says, referring to the river and harbor bill as passed by congress, whereby the secretary of war was instructed to take such legal proceedings as might be necessary to prevent the washing of débris or slickens, caused by hydraulic mining, into the Mokelumne, Sacramento, Feather, and San Joaquin rivers, or any of their tributaries: "They recognized the right and justice of our petitions. They recognized that the people owned these navigable streams, and that this state, through its legislature, had no right to permit acts that would destroy these public highways. They recognized that these streams under the compact made between this state and the United States, must be kept open and free to commerce. Now I do not threaten; I do not browbeat; I do not ask you to do that which you think is wrong; but I do ask you to do what would be statesmanlike; and I ask you whether you think that the great agricultural interests of this country must be destroyed, and this valley submerged under a coating of slickens for the sake of a few hydraulic miners?

"The history of all mining countries is that they go to decay, while agricultural communities, on the contrary, continue steadily progressing in prosperity and population. That should be enough of itself to satisfy us which is the greater interest, and which the interest we ought to foster. The question that we are now called upon to decide is whether we will preserve these lands for our children and our children's children, or whether we will allow the mines to cover them up, so that they will be worthless for centuries. If any man can reconcile his sense of duty with the latter course, I for one cannot see upon what theory he does it."

Thus, as he remarked, without entering into the legal question, which he left to other members of the senate, he discussed the matter on its practical merits. Nor in vain did he plead ; for largely to his efforts, as leader of the opposition, was due the defeat of one of the most iniquitous measures ever brought before a legislative body. On his final success, after a long and doubtful struggle, he was congratulated by friend and foe alike, among others by the governor of the state ; for the bill had been pushed with the utmost determination, and seldom had so fierce a struggle been witnessed on the floor of the senate.

By his political opponents he was no less respected than by his political allies, for he ever treated them with courtesy and consideration. It is related that during an extra session a democratic member of the house in which he was also serving, lost a brother, and was very anxious to be present at the funeral. But it happened that the republicans and democrats in the chamber were so evenly divided that none dared absent himself for fear of giving advantage to the other party. Chandler was the only republican who consented to pair off, and the afflicted fellow-member was thus enabled to attend his brother's obsequies.

In all enterprises for the public good Mr Chandler was apt to take the initiative.

In his private benefactions he was equally generous, and when he thought well of a man and became his friend, was always ready to aid him to the best of his ability. A case in point was that of one who had owned considerable property in the town of Nicolaus. When the place fell into decadence, the value of his property became so low that he had to sell for $600 buildings which had cost him five or six times that sum. A later investment in a saw-mill proved equally disastrous, and soon he found himself in a distressed pecuniary condition. Mr Chandler came to his relief, and by timely assistance saved him and he afterward became a wealthy man.

Neither a placable foe nor a lukewarm friend, he was somewhat positive in his likes and dislikes, and when he hated a man would shun him, although there was too much of the milk of human kindness in his composition wilfully to offend another. His prudence, affability, and savoir vivre also preserved him from making enemies. In his long and prominent public career, in which he had often to oppose questionable schemes, he was known to have made only a single enemy. He and another were administrators of an estate, the agent for which, a man of doubtful character, with two indictments for perjury against him, went to New York, and thence forwarded to Mr Chandler a sworn bill for $1,200. The bill was forwarded to their legal adviser, with Mr Chandler's opinion that it was a just bill and should be paid, although he questioned the credence to be attached to the oath of one who was under indictment for perjury. This aroused the claimant's deadly enmity, which was never afterward placated.

By his love of truth and purity, by his upright life, his unswerving integrity, and strong sense of justice, as well as by his public spirit, generosity, and manliness, did A. L. Chandler leave an impress for good on the people of his adopted state. Men who knew him well, who were often in contact with him for social or business purposes, and thus had the best opportunity to appreciate his character, were constantly drawn closer to him. His brother grangers declared him to be a living example of what each granger should exert himself to be and do, and a host of personal friends acknowledged that there was in him a combination of qualities, such as are rarely found in any one man. It has been said of him that "he was weighed in the balance of public opinion, and tried by the scales of justice, and was not found wanting." If, like other men, he had his faults, he certainly never had a mean one; they were all on the better side of his nature. Nevertheless, faithful and conscientious as he undoubtedly was in the discharge of all his duties, it was in the inner circle of his home, as a loving husband, and kind indulgent father, that he appeared to the best advantage, for though by no means averse to society, there was no society which pleased him so well as that of his wife and children.

But while yet in the full career of his usefulness, while yet almost in the prime of life, and in the enjoyment of all his faculties, it pleased an all-wise providence to remove him from our midst. His death, which was caused by acute pneumonia brought on by cold and exposure, occurred in his fifty-eighth year, on the 5th of November 1888, a few days before the election in which, as was his custom he took an active part, joining in the republican procession and afterward delivering a speech. The funeral took place from his residence; and a large concourse of people gathered from far and near to pay their respects to the memory of one of whom all had felt proud, and whom all had so highly esteemed. The obsequies were conducted under the auspices of the Pleasant Grove lodge of odd fellows, of which the deceased had been a member of long standing, assisted by other orders with which he had also been affiliated. The procession from Fairview church to the cemetery was one mile in length, and contained more than a hundred and fifty carriages, the pall-bearers being selected from the most prominent citizens. The entire audience was greatly affected by the words of the officiating clergyman, and many were the tears of sympathy and affection shed for the grief-stricken wife and children, many the relatives and others who mourned the parting from their beloved friend.

"Always faithful to his obligations as a husband and father, as a neighbor and friend, as a law-maker and conservator of the interests of his constituents, and the welfare of his state." Such were some of the expressions of the Gold Hill lodge of masons, appointed to draft resolutions on the death of their brother, for of that lodge Mr Chandler was a member. The following was among the resolutions adopted at a memorial gathering of the members of the state grange: "That we recognize in the life of Brother Chandler those noble qualities that arise from constant effort to know and do right. Where others faltered or fell he gained strength to rise; and in the sorrow we feel at his departure is mingled something of the triumph he feels beyond that change wisely allotted to all." On this occasion the chairman and pastmaster, I. C. Steele, remarked: "I first met Brother Chandler in the state grange. When first I listened to his voice it was in advocacy of the organ of the state grange. At that meeting he was elected on the executive committee. After the meeting he became a director of the *California Patron* publishing company. This gave me an opportunity of knowing Brother Chandler further. It has been well said that, when we go through trials together, we either come nearer each other or grow asunder. Each fiber of my heart was entwined in his. Our confidence was mutual; our thoughts were bare to each other; and when the news came that he was dead, I felt that there was another in the spirit land. Brothers and sisters, there are times precious moments, when our loved ones in spirit-life come so near that we feel their presence and know they are near us. It has been thus with Brother Chandler. I realized the fact of his glorious opportunity. His life was exactly in the path that goes upward forever. He was a true, noble man. He cultivated the whole quality of his nature; and in all our consultation, in all the difficulties through which he passed, I never heard him say aught against any human being. He was free to forgive; he did not hold a grudge against anybody. Such a life as his increases my confidence in the possibilities of human nature."

By several other associations, by the legislature, and by his fellow-citizens at many a public meeting, was sorrow warmly expressed and in most feeling words, words not only of sympathy and love for the senator's family, but of regret that one had passed away whose loss could never be replaced. As the state was enriched by his efforts and example, it became the poorer through his demise, and there are few of whom it can more truthfully be said that the world is better in that he has lived.

CHAPTER XIV.

LIFE OF JAMES BOON LANKERSHIM.

RESOURCES OF CALIFORNIA—ISAAC LANKERSHIM—BIRTH AND EDUCATION—EL CAJON AND SAN FERNANDO RANCHOS—IMPROVED FARMING METHODS—FLOURING MILL—THE LANKERSHIM LAND AND WATER COMPANY—GROWTH OF LOS ANGELES—WIFE AND FAMILY—VISIT TO JAPAN—APPEARANCE AND CHARACTERISTICS.

IT was not the discovery and mining of gold, nor the construction of railroads, nor the founding and building of cities, nor the profits from trade and commerce that gave California unparalleled prosperity and growth. Each contributed to the results which have been attained. The gold deposits were at length exhausted because the processes of creation had ceased, and when the gold boom came to an end if there had been nothing else we would to-day be without railroads, and cities, and traffic.

It is true that California was adapted to pasturage, but so long as sheep and cattle raising was the principal industry, wealth came slowly, and commerce whether internal or external in volume was scarcely appreciable. It would not have become a great state in centuries had this been all. Its growth, wealth, and power spring from the productions of the soil.

All men have their peculiar tastes and adaptabilities. Honor is due to those who have built railroads and cities, and who have developed commerce to immense proportions, but the men who comprehended what was the sustenance of railroads, cities, and trade were wiser and greater. Such men are not

Jas. B. Lankershim

as conspicuous as those of the other classes, and therefore may not hold as high a place in the estimation of the world.

Among the men who early saw what were the resources of California which would give the greatest material power for all future time and who took steps to demonstrate the correctness of his conceptions was Isaac Lankershim. He was born in Bavaria in 1820, and came to the United States when he was but seventeen years old. He was a stranger to our language, laws, and institutions. He was an energetic, courageous, and observing young man. He settled in the neighborhood of St Louis, where he lived and worked till he was twenty-four years old. In the mean time he had married Miss Annis L. Moore, a young lady of English birth, who bore him two children, and who survives him, and resides with her daughter in Los Angeles.

He had accumulated some means, and had familiarized himself with farming. Like many other adventurous spirits he determined to emigrate to California and try his fortune on the Pacific coast. He left his family near St. Louis and crossed the plains with a herd of cattle, preferring to see what the country was before he removed his wife and children. He began farming in Suscol valley in Solano county. The valley was covered with wild oats as high as his horses' backs. Little cultivation of the soil had been done. In 1855 he sowed and harvested one thousand acres of wheat. It was the first considerable crop in that part of the state; the yield was abundant and prices were satisfactory. He devoted himself to farming until his decease, and was uniformily successful, as he cultivated intelligently and well, and garnered and marketed his products with care. His agricultural operations extended to the counties of Stanislaus, Merced, Fresno, San Diego, and Los Angeles, and in the latter county he ultimately concentrated all his interests. In Southern California he purchased large tracts of land and operated on a large scale either by himself or in association with others. The operations in which he engaged will be given more in detail in describing the career of his son, whose biography is here presented.

Isaac Lankershim was a man of deep religious convictions, which he carried into all his dealings and into his everyday life. He was a member of the First Baptist church of San Francisco, and was one of the founders of the Tabernacle Baptist church, now the Metropolitan Temple in the same city, and of the First Baptist church in Los Angeles. He contributed largely to the endowment of the Baptist college at Vacaville, Solano county, which was subsequently removed to Oakland. He did not confine his benevolence to his own denomination, but gave liberally to others. His devoted wife joined him in all his good acts, and has continued the good work since his decease. He was a man whose energy, industry, good judgment, and honesty continued through life. He died in Los Angeles in 1882, leaving to his wife and children a large fortune.

James Boon Lankershim, the son of Isaac Lankershim, was born in 1850 near St. Louis, in which he lived till in his tenth year. When he was four years old he was left to the care of his mother, his father having gone to California as has been stated. He commenced attending the common school at five years of age, and continued until the family removed to California. His opportunities for schooling when a child were good. He came to San Francisco with the family by the way of the isthmus of Panamá in 1860, and continued to reside there till 1871. He was educated at the High and Latin schools from which he graduated. His opportunities for education there were good and he improved them to the best advantage. His father was ambitious that his son should become a man of position in the world and entitled to the esteem of good people. He not only encouraged him in educational matters, but instilled into him the highest moral and religious sentiments. He graduated at the head of the senior class and became a member of the alumni association. He thought of taking a classical course for a time, but though his father was a man in affluent circumstances, he concluded to make his way in the world the same as his father had done before him.

Young Lankershim inherited a love for material development. He enjoyed the farm, and liked to see those things grow which supply human wants, and which constitute the basis of commerce. He was energetic and assiduous in his work. He early disclosed an observing cast of mind and excellent reasoning powers.

In 1871 he went to Fresno county and engaged in farming in connection with his father, who owned fourteen thousand acres of land there. He interested himself actively in the business and remained there. one year. His father became the owner of thirty-seven thousand acres of land in the El Cajon rancho, fifteen miles east of San Diego. Young Lankershim went there and superintended farming operations. Twenty thousand acres were planted to grain, and the hills and mountains surrounding the valley were filled with cattle which his father owned. The father and son also engaged in the grain and warehouse business in San Francisco and at other prominent shipping points.

Mr Lankershim was not as yet altogether satisfied, notwithstanding San Diego has a climate not excelled anywhere in the world. The valleys are small, and it seemed that the crops were not as good as in some other places. After a thorough examination and consideration of the surroundings, it was decided to make Los Angeles county the future home. The valleys were extensive and the earth yielded bountifully. At that time, however, the productiveness of Los Angeles county in cereals, vegetables, and fruits had not been developed. The people had so much relied upon stock-raising that little thought and attention had been given to other interests. In passing southward from San Francisco and stopping at San Pedro, Mr James B. Lankershim observed that flour, potatoes, cabbages, raisins, and nearly all kinds of vegetables were being shipped from the north to supply the Los Angeles market. He was greatly surprised, as he knew that all these things could easily be raised at home, and which would avoid the depletion caused by their purchase abroad. The policies of the farmers were neither economical nor wise. They would raise large crops of barley and little else, and would sell off their crops early and at almost any price they could get, and before the next harvest they would be short of feed, and would have to purchase at much higher prices than those at which they sold. It appeared to Mr Lankershim that all this should be changed. In 1869 Mr Isaac Lankershim in conjunction with other capitalists purchased the southern half of the San Fernando rancho, which contained sixty thousand acres, and the management was confided to him. The rancho had been very little cultivated and had been depastured for long years. It had not yielded revenue sufficient to pay the taxes. Under the able and vigorous management of the Lankershims its productiveness was developed so that its great value became apparent. In 1874 the owners incorporated under the name of the Los Angeles Farming and Milling company. Mr Isaac Lankershim was made president, which position he continuously held till his decease.

In 1873 the younger Lankershim arrived in Los Angeles and was made assistant manager of the rancho. He at once formed the opinion that the soil and climate were adapted to the growing of the cereals and especially wheat. Generally in the county efforts to raise wheat had proved failures, which were ascribed to the fact that the seasons had been too dry or too wet, but the Lankershims were of the opinion that a prominent cause of failure was in defective cultivation. Notwithstanding the unfortunate experiences of others, they proceeded to make the experiment. They ploughed deep and cared well for the crop. They sowed two thousand acres of wheat, and in the autumn of 1875 were able to load at Wilmington for Liverpool, England, three ships with an aggregate of three thousand tons from the yield, and the quality of the wheat was pronounced in Liverpool to have been the best that had been received from California during the season. In the second year the area was increased to four thousand, in the third to ten thousand acres, and finally, by 1885, there were planted in cereals thirty thousand acres. At no time was there a failure of a crop, or when the product was not remunerative. The yield averaged twenty bushels to the acre, and continuous cropping for thirteen years did not seem to lessen the productiveness of the soil.

The Lankershims were observant of circumstances and conditions which surrounded them. Los Angeles imported her breadstuffs, and the trouble and expense of shipping away the wheat drew heavily upon the profits. A flouring-mill at Los Angeles seemed to be necessary, and to promise ample remuneration. The company erected one with a capacity of two hundred barrels per day, which was subsequently increased to five hundred. The enterprise at first did not meet popular approval. The Lankershims had innovated by raising wheat for export, and now they proposed to grind it for home consumption; such a thing had never been in southern California and it was breaking in on well-established methods. From sheer prejudice against new things the enterprise encountered opposition. For a time the products of the mill were marketed in Arizona and at other distant points, but their excellence soon broke down the opposition, and they found a ready sale in all parts of southern California. In 1884 the company secured a contract for twenty carloads of flour from San Francisco, notwithstanding it had thirty competitors. The property of the company is of immense value. In 1888 the assessment for taxation fixed it at one million dollars, but its real worth was double that amount. In addition to the rancho, it is the owner of the mill, its plant and warehouses which are situated in the very heart of the city of Los Angeles. The mill constantly runs at its full capacity, which is three thousand barrels per week.

Until late in 1887 the rancho remained unbroken, though tempting offers had been made by capitalists to purchase it in whole or in part during the speculative period. In the autumn of this year it was decided to place twelve thousand acres on the market in tracts ranging from five to forty acres, and to dispose of them to actual settlers only. The project contemplated the formation of a company to carry the plan into effect. One was organized under the name of the Lankershim Land and Water company, and to the town which is springing up on this land the name of Lankershim is also given. The scheme was not merely speculative, but it rests upon the soundest policy. The idea is to encourage farming and fruit-growing. The soil is exceptionally fertile, the scenery is excellent, and water is plenty. Avenues have been laid out and ornamented with shade trees for a length of seven miles. The best class of settlers have been secured and there is appearance of prosperity and thrift everywhere. Sales have been liberal in the dull and reactionary period, and have amounted to a sum sufficient to make all necessay improvements and to pay eighty-two per cent of the company's indebtedness, and but one-quarter of its lands have been disposed of. These sensible methods reflect the views of Mr Lankershim, who had been schooled in substantial ways of doing business. He has given all his spare time to this enterprise, and its success thus far is due in no small part to his good sense and indefatigable energy. He well understands that a town cannot exist without something to support it, and everything possible has been done to place the town of Lankershim upon a substantial basis. Until 1877 Mr Lankershim resided on the San Fernando rancho and attended to its affairs, but in that year he moved to Los Angeles to look more especially after the business of the flouring-mill. At that time Los Angeles was a small town as compared with the present. From 1860 to 1871 he had resided in San Francisco, and afterwards had frequently visited it. He had seen its growth and had made a study of the sources of a city's prosperity. Considering the broad extent of cultivable land which was contiguous, the fertility of the soil, and the great variety of productions, Mr Lankershim saw that Los Angeles had a great future. The physical conformation invited extension of the city to the south and west. He purchased in those directions from where the business portion of the city then stood. He was correct in his judgment. The city did extend as he had calculated with great rapidity and values were immensely enhanced. He built dwelling-houses, boarding-houses, and stores, and public buildings were erected in the vicinity of his properties. The coming of invalids, tourists, and sojourners gave occupants to his buildings, and everything he touched turned out profitably. One of the finest structures in the city that he has erected was completed in 1888 on the corner of Main and Winston streets, and his own elegant residence, in the Gothic style of architecture, on the corner of Olive and Tenth streets, was finished in 1885.

In December 1881 Mr Lankershim married Miss Carrie Adelaide Jones, a daughter of Mr John Jones, an Englishman by birth, but who for many years was a wholesale merchant first in San Francisco and then in Los Angeles until 1874, when he retired from business with a large fortune. Mrs Lankershim is a lady of attractive personal appearance and of culture, being a graduate of the Mills seminary. Two children have been born to them, a son, John Isaac, in 1883, and a daughter, Dora Constance, in 1885. In 1887 Mr and Mrs Lankershim sailed to Asia for a pleasure trip and made a tour of Japan. They were greatly delighted with that ancient country, which, until Commodore Perry of the United States navy in 1850 opened to communication with the outside world, had been a realm unknown to civilized nations for many centuries. The traditions of heroes and warlike deeds which they learned there they dwell upon with enthusiasm. Mr Lankershim is just the man to take observations and gain knowledge from the habits and customs of that curious insular country. He speaks highly of the hospitality displayed towards strangers by the Japanese people. By his own exertions and by inheritance Mr Lankershim has acquired great wealth. He is engrossed in his business affairs, which he conducts with excellent judgment. He is director in the Farmers and Merchants' bank, whose capital and surplus are a million and a half dollars, in the Los Angeles Savings bank, a successful institution, in the Lankershim Land and Water company, whose capital is a million, and in the Los Angeles Farming and Milling company, whose capital is three million dollars. He has recently organized and is president of the Main Street Savings Bank and Trust company with a capital of two hundred thousand dollars. It is located across the street from the United States postoffice which is now under construction. In this bank are associated with Mr Lankershim many of the wealthiest and most prominent and successful business men of Los Angeles, and it promises to be one of the soundest, most influential, and successful institutions in the state.

Mr Lankershim has one sister who is the wife of Mr Isaac N. Van Nuys, of Los Angeles, and with whom his mother resides.

In religion Mr Lankershim is of his father's faith, and without ostentation he bestows his charities upon the needy and to promote the cause of religion. He is a democrat in politics, but never takes part in political manipulations. Though his business affairs crowd upon his time he keeps himself informed upon public questions, and performs what he regards as the bounden duty of a good citizen in all the relations of life. He has never held nor sought a public office and could not be induced to hold any but an honorary position. Mr Lankershim is above the medium height, compactly built, but not corpulent. His chest is large, which gives him unusual vital force. His complexion is dark, eyes brown, and hair black. He is kindly in disposition and has a tendency to be humorous. He is a genial companion, courteous to all, and provides for his family with princely generosity. He has great capacity for work, is enduring and energetic. He is quick of perception, clear in reasoning, and cool and deliberate in manner and thought. He is not liable to err, and in business circles he stands high. He is correct and honest in business, and his habits are unexceptionable. He has not only an observant and philosophical mind, but he is endowed with the power to forecast results and events. He knows when it is best to go fast or to go slow. He is not a believer in speculative excitement, but in natural and substantial growth, and he has never operated upon any other theory. He believes well-directed work is the lever of growth and prosperity.

Mr Lankershim inherited practical characteristics, and has developed them to a remarkable extent through his own efforts and experiences. The development of cereal production in Los Angeles county is due in large part to the exertions and examples of father and son. Everything done by them has been sensible and substantial. The subject of this biography cherishes the memory of his father with the greatest respect and affection. He was exactly adapted to carry forward the great work which the father commenced, and he has been faithful and efficient in making his own career a fitting sequel. Since his majority he has devoted himself to material development, and his labors have been of incalculable value to the country as well as of benefit to himself. Mr Lankershim is several years short of the meridian of life, and barring accidents he has a third of a century of work before him. His future achievements can only be estimated from what he has accomplished in the past. Few men in the world have before them careers which promise greater usefulness and successes.

James Adams

CHAPTER XV.

LIFE OF JAMES ADAMS.

Ancestry and Early Environment—Manful Struggles against Adversity—Vicissitudes of Pioneer Industry—Success Won by Steadfast Labor—Respectable and Useful Career as Private Citizen and in Legislative and Executive Office—An Exemplary Life.

Among the builders of empire on this coast whose memory is endeared to us by their noble attributes, men whose blameless lives and purity of character have left an impress on the community which time cannot efface, is the late James Adams, merchant, farmer, supervisor, sheriff, and legislator.

Mr Adams was born on the 1st of June 1830, in the parish of Ballindery, County Antrim, Ireland, a spot dear to all true Irishmen as the birthplace of revolutionary heroes. In the ancestry of his parents was the intermixture of Scotch and Irish blood, from which has come the highest development of the Celtic race. Both of them survived, as did several of their forefathers, until their ninetieth year, their death being caused simply by the decay of the physical powers resulting from extreme old age. In belief they were methodists, strict in the observance of their religious duties, and careful as to the spiritual welfare of their children. By occupation farmers, they were esteemed among their neighbors as wealthy, or at least well-to-do, their lands though not held in freehold, being occupied by the family for several generations and still remaining in their possession.

Until his sixteenth year Mr Adams worked on his father's farm, attending school in winter, or whenever his services could be spared, and meanwhile acquired those habits of industry and economy which he retained in all his later years. Thus early in life he displayed the self-reliance and strength of will which were among the strongest traits of his character, and had even then resolved to seek his own fortune in a land which afforded wider opportunities for the exercise of his powers. In 1846 he embarked for Quebec, encountering many hardships on his voyage, which, as he afterward related, was the most cruel experience of his lifetime. Black vomit broke out on board the vessel, and of all her crew and passengers he was one of the four who survived. Soon after landing he was himself taken sick, and during this illness his slender means were exhausted, so that on his recovery he found himself almost penniless, and a stranger in a foreign land. He was, therefore, glad to accept employment with a farmer at a salary of eight dollars per month; and now having the misfortune to break his leg, remained at his post until he had earned sufficient to repay the indebtedness incurred by this accident. Soon afterward we find him in Philadelphia, engaged in business as a grocer; there he remained until 1852, when, in the hope of bettering his fortunes, he sailed for California by way of Cape Horn.

Two years later he commenced farming at Bodega, Humboldt county, raising grain and potatoes for the San Francisco market. At first he met with fair success, but, during the second year, his crop failed, and he removed to San Francisco, where he began business as a coal merchant in conjunction with Robert Smith, and later as a hay and grain merchant in partnership with Mr McEwen. While engaged in the latter calling he laid the foundation of his fortune and also won for himself a reputation as a shrewd, careful, methodical business man, one who knew how best to avail himself of his opportunities, or if need be, to create them. About 1868 or 1869 he disposed of his interests, invested most of his means in real estate, in which he continued his transactions until the time of his death, making his purchases with excellent judgment, buying only such properties as would increase in value, and avoiding speculation.

In 1869 Mr Adams was elected supervisor, being chosen one of the Industrial school committee, in the affairs of which institution he took a special interest. He was also one of the committee appointed to report on the question of conveying to San Francisco the water of Clear lake, as a pure and unfailing source of supply. During his term of office the people had for the first time an opportunity to gauge his ability for the administration of public affairs, and by all it was acknowledged that he displayed unusual aptitude for the management of the important matters intrusted to him. Thoroughly understanding the needs of the city which he represented, he was perfectly loyal to its interests, attending with the strictest fidelity to every trust. So faithful was he in the discharge of his duties, that, on the completion of his term, he was nominated for the shrievalty, though his first intimation of such a choice was the announcment of his name in the newspapers. In each instance his nomination was unsolicited, and in a measure forced upon him. Although a staunch republican, he received a large number of democratic votes, and was elected by such an overwhelming majority as is only bestowed on the people's favorite. On assuming office, he found himself in a position fraught with difficulty, for many years had elapsed since it had been held by republicans, and he encountered a strong and concerted opposition from an army of influential machine politicians. It was, however, the verdict of the public that never before had this post been filled by one so thoroughly honest and faithful, of which the best evidence is the saving effected during his term, which exceeded that of any previous administration. While in charge of public affairs he was no less careful and economical than in the management of his own, attending closely to every detail, selecting his assistants strictly with regard to character and capability, apart from all political motives, and doing always that which in his own judgment was best for the public good. By him office was regarded not as a means for his own enrichment, but as a public trust, involving grave responsibility, one which demanded his entire attention and the exercise of all his faculties.

Though strict in the performance of his official duties, he treated all with the greatest courtesy and kindness. If as sheriff or supervisor he made political enemies, this was due to his rigid impartiality, his perfect integrity, and his aim to serve the public rather than interested persons. While supervisor, during the mayoralty of Thomas H. Selby, whom he numbered among his firmest friends, he rendered good service in aiding to thwart the designs on the city's water front, and on all other occasions used his influence to defeat the machinations of rings and monopolies. More than once he was approached, though never in person, by men who sought his assistance in questionable schemes, but such overtures he treated with contempt. Never did he consent to take the part of a friend as against the interests of the people. "If you are in need of money," he would say, "I will give it to you, but you must not ask me to do anything inconsistent with my official duties."

During his term as sheriff occurred the escape of two notorious criminals, named Brotherton, when lodged in the county jail, awaiting a second trial for forgery. For their capture he personally offered a large reward, which was effected after some delay, caused, as is commonly believed, by the connivance of his political enemies, through whose agency, it is also alleged, the convicts were helped to regain their liberty. To a certain ex-convict he offered five hundred dollars for information which would lead to their arrest. Although it was found that this information was already possessed by the authorities, and therefore of no value, he nevertheless carried out his agreement, and paid the man his price. So careful was he not to do injustice to others, that he would not discharge the jailer who was responsible for the custody of the Brothertons until his neglect of duty had been established by a thorough investigation.

On the completion of his term as sheriff, Mr Adams purchased a tract of land in Sonoma county, one of the most beautiful spots in Sonoma valley. In improving this property he expended money without stint, engaging largely in viticulture, and devoting his leisure time to a careful study of the viticultural interests of the state. He also placed on it a number of well-bred horses and cattle, for he was an excellent judge of livestock, the care of which was one of his favorite pastimes. As director in the agricultural district comprising the counties of Sonoma, Marin, Solano, Napa, and Lake, and as president of the Sonoma County Agricultural Park association, of which he was one of the founders, and afterward of the Golden Gate association, his services met with due recognition.

That he accumulated a handsome fortune was almost a necessary consequence of his business habits, his rare executive ability, and the excellent use which he made of his time and opportunities. While setting a proper estimate on the value of money, not for its own sake, but for the comfort and independence which its possession affords, he was a man noted for his unstinted charity and hospitality. His benefactions were always bestowed in private, and as a rule through the agency of a third person, so that often the recipient did not even know to whom he was indebted. As a host he was the embodiment of the liberal, free-hearted, country gentleman. Those who were invited to his home were treated not merely as guests, but as chosen friends and members of his household, enjoying all the comforts and privileges which that generous household afforded, and sharing the free and independent life in which he himself delighted.

On purchasing his farm in Sonoma county it was his intention to pass there the remainder of his days; but erelong he began to feel the need of a wider sphere of action than could be found amid that staid and conservative community. Throughout his career he had led an active life, mingling freely with his fellowmen, taking his full share in the strife of politics and of business, and for a man of this temperament it was impossible to rest content with the environment in which he found himself. In 1881, therefore, he removed to Oakland, where he had already bought and furnished a suitable residence in one of its most sightly locations, and there he remained until the time of his death, surrounded by a circle of society more in harmony with his tastes and habits.

Meanwhile, in 1880, he had been chosen a member of the assembly for Sonoma, then the banner county of democracy. Though taking a deep interest in politics from a republican standpoint, he was not, as before remarked, in any sense of the word an office-seeker, never regarding his fealty to his party, or even his fidelity to public interests, as giving him any claim to place or emolument. That he should have been chosen, therefore, by an intensely democratic community to represent them in the legislature was but a suitable recognition of his ability and worth.

The session was a stormy one, and issues of great moment were under discussion; but Mr Adams was fully equal to the occasion, and never were his sterling qualities displayed to better advantage. He abhorred trickery and chicanery, and fought corruption wherever it showed its head with a vehemence and persistence that thwarted many an insidious measure. None understood better than he the schemes of politicians and lobbyists, and none were more constant in opposing them. The demagogy of the proletariat he hated no less strongly than he resented the tyranny of capital, and against both he lost no opportunity of uttering his protest.

Among his constituents it was indeed universally admitted that he rendered more efficient service than any of their former representatives, and of this we have further proof in his appointment to a number of important committees, among them being those on education, on swamp and overflowed lands, and on the culture and improvement of the grape, of the last of which he was appointed chairman, in recognition of his labors in behalf of the viticultural interests of the state. During his term he gained for himself a reputation as one of the most useful among what may be termed the working members of the legislature, as one who, though not an orator, was strong in counsel and in argument, with sound judgment and a wide experience, applying himself to the task in hand with all the zeal and earnestness characteristic of his nature. He was, moreover, a man of progressive ideas, full of enterprise and ambition, with great personal magnetism, and a rare facility for making friends, to whom he was known by the endearing sobriquet of Honest Jim.

Until the close of his life Mr Adams continued to take an active part in politics, and was appointed after the conclusion of his term a member of the state central committee, and of the convention at Los Angeles which nominated Swift for governor. He was ever a strong republican, esteeming as greatest among the roll of our presidents the names of Washington, Adams, and Lincoln, for the last of whom he voted on his second nomination, regretting only that his ballot was not cast for him at his first election. Garfield he also considered as one of the most able and conscientious of our statesmen, regarding his loss as a national calamity which could never be repaired.

The new constitution he condemned as adverse to the welfare of the state, and to all labor and other agitations he was strongly opposed, believing that they cause the most injury to the very classes whose interests they pretend to foster. As to the tariff, he was in favor of protection, believing that a policy under which the nation has attained to its present era of prosperity is the one best fitted to its future needs. The Chinese he considered to be a vicious and degraded race, and never employed them on his farm or in his household if the services of white men could be secured.

Mr Adams was a member of the masonic fraternity, and until his later years an odd fellow, in which society he attained to a high degree. Though not himself a church member, he was a liberal subscriber toward the support of the churches, fully recognizing the influence which religion exercises for good on the rising generation. His own children he required to be punctual in their attendance at church and sabbath-school. On one occasion finding that his son, when leaving home for college, had no bible in his possession, he at once bought for him a copy, which he presented with an injunction to study and profit by its teachings. Religious topics he never cared to discuss, though himself inclined toward the presbyterian faith, of which denomination all his family were members.

In February 1857 Mr Adams was married in San Francisco to Miss Sarah Elizabeth Cameron, a native of Philadelphia, whose parents were of Scotch descent, and residents of the north of Ireland. A woman of fine appearance, graceful in form, gracious in manner, and with a kindness of heart that won the affection of all her associates, she was to him a consort in the truest sense of the word, one possessed, moreover, of perfect health and rare physical endurance, energetic, economical, and always taking her full share of her husband's responsibilities. Her decease in 1883, on the anniversary of her daughter's birthday, was to all the family a grievous affliction, and one from which Mr Adams never fully recovered.

Of their nine children, the two surviving daughters, Elizabeth Grace and Ruth Vivian, together with Thomas Selby and Frederick Stewart, the youngest of their five sons, still reside in Oakland. The eldest son, J. E. Adams, is a member of the wholesale leather firm of Brown and Adams of San Francisco, and was married to Miss Francis Isabel Perkins, daughter of Governor Perkins. W. H. Adams, a member of the Stetson-Renner drayage company, married Miss May Fillmore, daughter of Luther Fillmore, superintendent of the South Pacific Coast railroad, a branch of the Southern Pacific. J. C. Adams, an alumnus of Princeton college, class of 1886, and of the Columbia law school, New York, class of 1888, began soon afterward to practise his profession in San Francisco. The sons, all developing in the full vigor of manhood, inherited the magnificent physique and intellectual qualities of their father in a remarkable degree, the two first displaying rare ability for business, the third giving earnest of a creditable future in his chosen profession.

There are none whose loss was more sincerely regretted when, on the last day of July 1888, it was heard that the well-known face of James Adams would be seen no more in our midst. A few days before his decease he appeared to have fully recovered from an ailment which, for a man of his vitality, was not considered serious. On his way home from Adams springs he breathed his last at Calistoga, and, to the odd fellows cemetery in San Francisco, where he was laid to rest, his remains were followed by a vast concourse of mourners, all of whom felt, while doing honor to his memory, that one had passed from among them who could never be replaced.

Mr Adams was a man of noble presence, of massive but symmetrical build, deep-chested, broad-shouldered, and tall of stature, lacking only half an inch of six feet in height. His complexion was fresh and ruddy, with features of a kindly and good-humored expression, as was his natural disposition, though when roused, he was one whose anger no one who knew his spirit cared to brave. His eyes were large and full, grey in color, and expressive of strong feeling and purpose. His carriage was easy and graceful, his attire neat, and in the ordering of his household he displayed a taste for those appointments which combine utility with elegance. In manner he was genial and hearty, yet withal dignified and reserved, admitting but few into the closer intimacy of his friendship. In all his business relations he displayed the most positive integrity, fulfilling his promises to the letter. On one occasion, after a verbal agreement with a friend to sell him a piece of real estate, while the papers were being made out, he was offered an advance of $2,000, which he of course declined, regarding his word as good as his bond, as did all his associates. He was keen and ingenious as a trader, and made the best bargains he could; but he never sought an unfair advantage, or stooped to any indirection. He husbanded his resources carefully, but he was not a niggard, and his purse was opened with discrimination to every worthy charity. He was loyal to his adopted country, to his family, and to his friends.

His greatest pleasure was his home, where the many who met him remember the warmth of his greeting, and his cordial hospitality. As a servant of the people, in whatever position, he earned and has transmitted to his children a reputation unsullied even by imputation of base motive or questionable act; in a word a moral character without a superior in the political annals of California. Pity it is that there are not more men like him in the public service, for even one such example gives tone and character to the administration of affairs, and leaves an impress for good that can never be entirely effaced.

D. S. Locke.

CHAPTER XVI.

LIFE OF DEAN JEWETT LOCKE.

ANCESTRY AND BIRTH — LUTHER LOCKE — EDUCATION — JOURNEY TO CALIFORNIA—PROFESSIONAL SERVICES—ELMER HALL LOCKE—HOME-BUILDING ON THE MOKELUMNE — MARRIAGE — THE TOWN OF LOCKEFORD — CHARACTER AND APPEARANCE—DECEASE—SUMMARY OF CAREER—SONS AND DAUGHTERS.

IN 1842 there was discovered and dragged from its hiding place at the Augmentation office, in Westminster hall, London, an old manuscript volume of records, containing the names of persons who had obtained permission to embark at that port between Christmas 1634 and Christmas of the following year. The intolerance which prevailed in the reign of James I gave an impetus to emigration from England to America, which arbitrary measures enacted later failed to check. In the time of Charles I many obstacles were interposed with that view, evidence of which is found in the above mentioned volume, where are recorded certificates of the administration of the oath of supremacy and allegiance required of all who wished to emigrate.

In an entry dated March 22, 1634 appears the name of William Lock, aged six years, who was allowed to embark on the *Planter*, bound for New England, and who became the progenitor of him whose biography is here presented.

William Lock was born at Stepney, London, December 13, 1628, and was taken to New England by one Nicholas Davies, who, there is strong reason to suppose, was his uncle. Nothing is known of the minority of this ancestor of the Locks in America, and particulars of his life are scant, until we find him at the age of twenty-seven years married to Mary Clark of Woburn, Massachusetts. Since that time his career can be followed with tolerable clearness. He soon became a landowner and eventually a man of wealth. His success in life seems to indicate that he possessed in an equal degree the indomitable perseverance which was a marked characteristic of his descendant, Dean Jewett Locke, who was born nearly two centuries after the child emigrant sailed down the Thames in the *Planter.*

Dean Jewett Locke was born April 16, 1823, at Langdon, Sullivan county, New Hampshire.

His father, Luther Locke, was a trader at that place, owning a store in co-partnership with a brother. At a somewhat later date, Locke, the elder, engaged in the transportation business between the larger cities, and during the absence of the father, the mother with her boys resided on the farm which she owned in the immediate neighborhood of Langdon.

Luther Locke, who was a prominent member of the congregational church, seems to have displayed somewhat of the strictness and severity shown by the early puritans in the government of their families. As a father he was stern, and lacking in the sympathy which parents usually feel toward their children. Youthful frivolities and indiscretions were rigorously checked, and any inclination to deviate from the household regulations met with immediate and effectual reproof. As a man his conduct in public and private life, was governed by the same code of morals ; he was strictly honest alike in action and intention ; in his dealings with others, and in the expression of his opinions, and to him wickedness of any kind was detestable.

Brought up under the somewhat draconian system of such a father, and reared among the rural people, hardy and vigorous, whose thrift and industry, sobriety and religious tendencies were ever present before him, Dean Jewett acquired decision of character, determination, and self-reliance at an unusually early age. It is not, therefore, surprising to learn that he began to earn his own living after he had reached the age of ten years, afterwards passing but little of his time at home. But his object in abandoning the paternal roof had nothing ignoble about it, on the contrary, a laudable and healthy ambition impelled him to take this step. He yearned for a better education than he could obtain in the small country town that was his birthplace, and he went in search of it. A more conspicuous representative of the class of self-made men than Dean Jewett Locke can hardly be found, even in a country prominent for the production of this strong and dominant type.

After undergoing various experiences, we find him, when a boy of fourteen, employed as a janitor of an academy, his services being accepted in payment for his tuition. For his board and lodging in the winter season he sawed wood, and did the chores about the country house where he lived, and in the summer labored in the harvest-fields.

For three years he led this life of toil, and then, ever with the same object in view, became teacher in a school at Tewksbury, Massachusetts. That he could obtain such a position, when no more than seventeen years old, is sufficient evidence of his industry, his proficiency, and his ability.

At this time, Horace Mann, secretary of the Massachusetts board of education, was laboring in the cause of normal schools, and their establishment in that state. Meeting the young teacher, it was not long before he entertained a high appreciation of his merits and persuaded him to enter the normal school at Bridgewater. In March, 1843, Mr Locke graduated, and for four years followed the profession of teacher.

Having now arrived at manhood, and obtained a sound education through his own efforts, he chose the medical profession as his vocation in life. The calling of a teacher had only been adopted as means to an end; and as soon as he had acquired a sufficient amount of money for the purpose, he entered Harvard medical university, where he remained until the spring of 1849. He would have graduated in a few months but the finding of a little gold in California the year before, changed the whole tenor of his life, causing him to join the Boston and Newton Joint Stock association, bound for the new El Dorado, and composed of twenty-five members, representing almost as many trades and professions. The following were the men who composed the company: Jesse Winslow, Benjamin Burt, Brackett Lord, David J. Staples, J. F. Staples, Geo. Winslow, Robert Coffey, Daniel E. Easterbrook, M. J. Ayer, William H. Nichols, Chas. Gould, A. C. Sweetser, D. J. Locke, George Thomason, W. C. Felch, J. St Clair Wilson, Lewis Whittier, H. B. Christ, Harry Noyes, Evans, Osborn, Wight, Hough, McGrath, Loving.

On April 16, 1849, the company set forth from Boston, Mr Locke being appointed their physician, and leaving behind him a younger brother, Elmer Hall, at that time undecided as to emigrating, though under strong magnetic influence. After a five months' journey across the plains, the party arrived at Sacramento, September 16th, of the same year. During the time that Dr Locke remained in the future capital of the state—then a city of tents—great demand was made upon his medical and surgical skill; and the sick and wounded incessantly applied to him for relief. In those early days no individual's arrival in a community was more quickly known and widely reported than that of a doctor, and it was owing to such notoriety that Dr Locke participated in one of the striking incidents which seem more like episodes in romance than sober reality.

At the request of a stranger, who entreated him to hasten to the side of a young man who, it was feared, was mortally wounded by a rifle-ball, the doctor followed his guide to the tent where the injured man was lying. As he gazed upon the pallid face of the sufferer, to his great amazement and grief he recognized his brother Elmer who, unknown to him, had shortly after his own departure from Boston, embarked on a ship bound for California, and had arrived at Sacramento about the same time as himself. The wound soon yielded to skilful treatment; it had been caused by the careless handling of a rifle by Elmer, the weapon having been discharged while pointed toward him, and the bullet, striking him near the hip, had passed round the spine and lodged in the opposite side. To have reached Sacramento in 1849 and not to have gone to the mines was hardly to be expected among those adventurous spirits who crossed the plains that year in search of gold. Accordingly, after remaining some time in Sacramento, Dr Locke went to Downieville, then to Mississippi bar, on the American river, and engaged in mining, but more particularly in trading, always acting as physician when opportunity offered. But he did not find this mode of life in harmony either with his tastes or ambition. It can readily be conceived that his surroundings in a mining camp in those days could not be congenial to him. His previous life had been passed in the pursuit of knowledge; he had been an instructor in various schools, where he had not only been in authority, but had learned the art of guiding and directing; and he had a deep-planted devotion to the cause of education; moreover, he was a moral and abstemious man, one who looked upon a saloon as a curse, and the gambling-table as an institution of Satan. A mining town, with its ever wild and fluctuating community, was not the arena in which he would ever be able to wield the weapon of influence; but if he could pioneer the way to the establishment of a settlement, and be the founder of a future town, his aspirations might to some extent be gratified.

On the last day of the year 1850, Dr Locke and his brother Elmer encamped on a tract of land, lying on the Mokelumne, which they had purchased of Staples and company who claimed title under a Spanish grant. That claim, however, was afterward ignored by the government at Washington, and the settlers were compelled to repurchase their farms. On the summit of an oak-crowned knoll, the pioneers built their cabin and entered upon a new phase of life. Other settlers followed in their wake and a little colony sprang up, not planted on the unstable foundations of mining success, but on the durable basis of agriculture. As early as 1854 a school district was organized, the doctor being elected a member of the first board of trustees, an office which he filled almost uninterruptedly to the time of his death.

A permanent home, with bright prospects and an honored position among his fellow settlers had now been gained—the praises won by the will and perseverance of the man, who, as a child and boy had so tenaciously battled for them; but a still greater prize was awaiting him. While occupying the post of teacher in the district school of North Abington, Massachusetts, he had made the acquaintance of Miss Delia Marcella Hammond, and hitherward he now turned his face. In December, 1854, he went back to New England, taking the Nicaragua route, and on May 8th, of the following year was united in marriage with the object of his love and respect. The newly wedded did not remain long in New England, but hastened away to their far-distant home accompanied by the doctor's father, Luther Locke. They arrived in California July 1st, of the same year.

Dr Locke at once proceeded to erect a suitable residence for his bride, and built the first house in what is now the town of Lockeford, San Joaquin county. The settlement grew rapidly under his enterprising management, and in 1862 assisted by Rev. S. V. Blakeslee he laid out the town which was named in his honor. In the same year the congregational church of Lockeford was organized and a postoffice established, Luther Locke being appointed first postmaster, a position which he held to the time of his death. The doctor moreover, in partnership with his father, opened the first store in the town at this time. But the crowning success of the year was the success which attended the first attempt to navigate the Mokelumne. On April 5th, the little steamer *Pert* ran up the river, and discharged a cargo of freight at Lockeford landing. The excitement was immense, a crowd of spectators gathered from the surrounding country, having collected on the bank to witness the success of the enterprise. It is needless to state that Dr Locke was its projector.

And so it was about almost everything he undertook; his untiring energy, his unremitting perseverance, and his clearness of judgment led to success, and whether as stock-raiser, hop-grower, or country merchant—for he was engaged in all these occupations—failure never pushed him to the wall. He was one of those whose brain never rests, ever planning, ever on the watch to engage in some enterprise that might promote not so much his individual welfare as that of the community. His public-spiritedness and liberality kept him from becoming very wealthy; the greater portion of the fortune which he amassed during the years of hard work and economy, he devoted to the improvement of the town which he had founded, donating lots, erecting public buildings, which remain as monuments to his memory, and giving encouragement in the form of liberal subcriptions to any undertaking that he considered conducive to the benefit of the public. Indeed, so far did he carry out this principle of generosity that, although his residence was commodious and supplied with all the conveniences of life, he denied himself many of those esthetic luxuries in which a man of his tastes finds enjoyment and relaxation, because he looked upon the expenses attending such enjoyment as an extravagance that would curtail his means of advancing the public weal. His economy and self-denial in this respect proclaims the benefactor.

But the generous promptings of his mind did not confine him to the more practical side of benevolence. He was a moral philanthropist as well as a public benefactor. He could donate lots for churches and public buildings but he would not sell one at any price for the erection of a saloon thereon. During his whole life he abstained from the use of intoxicating liquors and tobacco, and his wide experience among men having shown him the evil effects of stimulants, it was his constant endeavor to try to induce young people to follow his example by practising total abstinence. He was successively a member of the Dashaways, the sons of temperance and the good templars. By his death the cause of temperance lost one of its staunchest supporters not only in Lockeford, but throughout the State of California.

With regard to the personal appearance of Dr Locke, having in mind his rugged training and early acquaintance with bodily labor, we are prepared to find that he possessed a strong physique, his weight being nearly two hundred pounds, and his height five feet nine and one-half inches. In youth and early manhood his beard and hair, which were very heavy, were dark in color, contrasting singularly with his clear light complexion. This contrast was brought out still more strongly by the color of the eyes which was of light blue-gray tints. Toward the close of his life the contrast disappeared, as the hair and beard gradually became almost perfectly white.

For a quarter of a century after the founding of Lockeford, the doctor continued faithfully to perform his duties in private and public life. Four years before that event took place, he had to mourn the loss of his brother Elmer, who died June 28, 1858, at the age of thirty-two years. In 1864 Mrs Locke's father Mr Hammond, came to California bringing his family, and was made deacon of the congregational church and superintendent of the Sunday school of Lockeford in 1866.

About a year before his death, Dr Locke met with an accident which had a serious effect upon his constitution. Being thrown from his buggy he received injuries from which he never fully recovered. Although his indomitable will would not allow him to look upon himself as an invalid, and on his partial recovery he still continued to attend to business and superintend the work of his farm, his former strength was gone. When, therefore, he was attacked by pneumonia he had no rallying power, and the disease made rapid progress. After only four days illness the founder of Lockeford, surrounded by his family, breathed his last on May 4, 1887 at the age of 64 years. He was buried on the 8th of the same month, that day being the thirty-second anniversary of his marriage.

His career is an index to certain traits of his character; but the gracious qualities which he possessed —his courteousness of manner and speech, his gentleness, the affectionate regard for children evinced in days when he taught; his indulgent kindness as a father; and his devotedness as a husband—these were only fully known to those who enjoyed intimate relations with him. With regard to his political views, he was a man of decided convictions. In early life he voted the whig ticket; later the free soil, and lastly the republican ticket. His sympathies being ever with the oppressed, he was little in sympathy with the anti-Chinese movement.

He left a large family, no less than thirteen sons and daughters, seven of the former and six of the latter, whose names I give in the order of their birth; Luther Jewett Locke, Ada, Nathaniel Howard, Horace Mann, Ida, Mary, William Willard, Hannah, John Calvin, Edward Moore, Eunice, George Hammond, and Theresa.

CHAPTER XVII.

LIFE OF JOHN THEOPHIL STRENTZEL.

Fruit-growing in California — The Strentzel Family — Early Life and Education of John Theophil Strentzel — Marriage — Coming to the Pacific Coast — Pioneer Experiences — Trials and Vicissitudes — Home near Martinez — Politics and Religion — Traits and Characteristics.

Prominent among advancing industries is fruit-growing in California, which desirable pursuit has brought into its service large capital and the best scientific and practical ability. And it is now universally admitted that whoever aids the best development of an interest like this renders the state a service. For such a service acknowledgments are due to John Theophil Strentzel, whose earnest work and able writings in behalf of horticultural progress have won him widely-known honor.

Lublin, in Poland, was his native city, where he was born November 29, 1813. His father, John Strentzel, was born in Pomerania, in the year 1771. His mother's maiden name was Sophia Meizner, born in Lublin in 1775. They were married in 1803, were extensive owners of city property, and had a large family of children, all of whom died before reaching maturity, excepting John Theophil, one sister and one brother. His parents and grandparents were protestants, and brought up their children in the Lutheran faith, although residing in a catholic community. Several uncles served with distinction in the

Polish army, two as surgeons. It was a happy household, the domestic relations all being harmonious, and their condition comfortable. The parents were kind but firm with their children, order and decorum being observed at all times. The father owned an orchard and fruit garden near the town, thus implanting in the children a love of country life and horticulture.

John Theophil's school life began at the age of six years, continuing uninterruptedly until his seventeenth year. His father intended him for a physician and his studies were directed to that end. His schoolmates and associates were the sons of officials and the nobility. The revolution in Poland in 1830 changed the whole tenor of his life, entering the army of volunteers and serving until its final disbandment in 1831. The younger men who had joined the patriot forces were immediately forced into the Russian army. With John it was either this or exile, and he chose the latter, though accompanied with serious difficulties. By the good offices of influential friends he was permitted to reside in upper Hungary for several years, gaining information in the wine trade and vineyard culture.

He resumed his medical studies in the university of Pesth, and was awarded a medical diploma. A broader field of action now offered by emigrating to America, which was done in 1840, in company with his brother. Landing at New Orleans he proceeded to Louisville, joined the Peterson colonization company, and went to Trinity river in Texas. He built a cabin on the site of the present city of Dallas, where he remained a year when, the company failing, he returned to the settlements. It was a wild life on the Trinity, the country being then but a primeval wilderness. Fortunately there were no Comanches near, but all around him were numerous deserted camps strewed with bleaching bones. Buffalo, deer, and all manner of game were plentiful and he became a most successful hunter. He then purchased a homestead in Lamar county, and followed his profession of physician and surgeon for a number of years.

On December 31, 1843, Dr Strentzel married Louisiana Erwin, who was born October 31, 1821, in Lawrence county, Tennessee; which proved a truly happy union. Mrs Strentzel's father, Samuel Erwin, was a Virginian who when young had emigrated to Kentucky and married a daughter of General Rife; but she dying in about three years, he went to the new Chicasaw purchase, or western district of Tennessee, following surveying for a number of years. He married the daughter of Mansel Crisp; and in 1837 removed with his family to Fannin county, Texas, where he resided until his death in 1854. He was a large, fine-looking man, well educated, gentlemanly and courteous in deportment, and a most upright and honest man. The mother was a delicate, refined woman, very domestic in her tastes, very religious, a member of the Christian church, and thoroughly devoted to her family.

Dr Strentzel's attention was first drawn to the Pacific coast through the glowing reports of Fremont, and, in the spring of 1849, he joined a company of about one hundred and thirty-five persons, and with his family set out on his journey across the plains on the 22d of March. No pathfinder had yet marked a trail across that region to El Paso, so they were forced to find their own road for eight hundred miles. There were nine women and twenty-five children in the train, the former showing great courage in thus committing themselves to the perils of a hostile wilderness against the entreaties of their friends. Though seldom molested by the Indians, they suffered greatly at times for want of water. On the desert before reaching El Paso, they travelled for days finding only alkaline water, and the whole train became fearfully exhausted. Mrs Strentzel was dangerously ill with fever, her life was despaired of, when, almost miraculously, the water hunters came upon some pools of pure water in a ridge of sand-hills about ten miles away, which was reached with the utmost difficulty.

Arriving at El Paso on the 2d of July, they celebrated the Fourth in camp, the Mexicans being friendly and hospitable. The company there broke up and scattered, some remaining at this point, some returning home, while the remainder re-organized and resumed their journey through the hostile Apaches to the gold fields of California. They crossed the Rio Grande on a raft a hundred miles above El Paso, the river running full and swiftly: thence to the Gila the journey was very pleasant, grass and water being abundant, and no trouble from the Indians. The party rested a day or two at each Mexican village, Santa Cruz and Tucson, and visited the old Mission church of San Xavier, passing several old deserted ranchos with orchards full of luscious peaches, and finding plenty of game. A number of wild cattle were killed by the party. Down the Gila to the crossing of the Colorado the way was sandy and the journey exceedingly difficult. At the Pima villages they purchased wheat to feed their famished teams. The seeds of the mesquite proved also a nutritious food for the animals. At the crossing of the Colorado they found a company of soldiers under Lieutenant Couts, stationed there for the protection of emigrants. While they were encamped on the river bank awaiting their turn to cross there occurred a terrible accident. Captain Thorn, who was on his way to California with a company of United States Dragoons, accidentally fell from the boat with three of his soldiers and all were drowned. Captain Thorn's body was recovered and sent to his family in New York. Lightening their train of all superfluous encumbrance, the weary travellers then struck out across the Mohave desert, but suffered terribly from hot sand-storms and the lack of water. They arrived at

Warner's rancho on the 8th of November, where they rested a week and were most kindly treated; thence they proceeded to San Diego, intending to go by steamer to San Francisco, but, being unable to sell their animals at anything near their value they concluded to go up the coast by land.

How seemingly insignificant are the events which rule one's destiny at such a time! Had Dr Strentzel gone to San Francisco by the ocean way his whole future life would have been entirely different, whether for better or worse no one can say. After remaining six weeks at the old Mission of San Diego, the party set out on this most delightful portion of their long and arduous journey. The weather was warm, the hills and valleys covered with wild oats and clover, with wild flowers in great profusion, and endless masses of eschscholtzia appearing at a distance like flames of fire. Arriving at the Tuolumne river on the 14th of April, the Doctor was so much pleased with the prospect that he concluded to settle there; and thus ended a journey of nearly thirteen months. Selecting a beautiful location about two miles below La Grange, the nearest mining camp, he put up large tents and established a ferry, hotel and store. The prices of everything were very high; hired help one hundred and twenty-five dollars a month; flour sixty dollars a hundred; milk a dollar a quart; and fresh butter three dollars a pound. Life here was varied and exciting. There was a good deal of travel from Stockton and Mariposa. One day Dr Strentzel would entertain Colonel Fremont, Lieutenant Beale, General Miller, and other noted persons; perhaps the next, a band of desperadoes passing through the country on their way to murder and robbery. The country around was infested by grizzly bears, and on one occasion Dr Strentzel came near losing his life from them.

Mrs Strentzel's health was now so much impaired that her recovery seemed very doubtful. For three years and four months she was confined to her bed, unable to walk, and in almost a helpless condition: but, contrary to all expectations she finally recovered and has enjoyed comparatively good health ever since. As she required the Doctor's constant attention all this time, and the most careful nursing, he concluded to give up his interests here and try farming and stock-raising. In company with his brother he purchased six hundred acres of choice land on the Merced river, about six miles below Snellings. On the place was a comfortable log cabin. They hurriedly cleared about ten acres and planted all the varieties of vegetable and fruit seeds they could obtain, paying most exorbitant prices for the same. For example, twenty dollars a pound for onion seed. They planted in nursery, some fruit trees purchased in San Jose at three dollars apiece. Everything grew luxuriantly, giving promise of abundant harvest; but the spring floods covered the whole from five to ten feet deep and the fine garden was completely swept away. Then they cleared and planted another plot of land to vegetables for a summer crop, which was also destroyed by the rise in the river. The winter overflow about Christmas covered the whole valley from bluff to bluff, the water reaching a depth of three feet in their house. It came about midnight pouring itself over the floor until the fire in the stove was put out, and it had almost reached the bed whereon lay the invalid wife. The Doctor was entirely without help, his brother and the hired man having gone to the Tuolumne river. They had been caught in the storm on their return and were unable to cross the sloughs. In like manner he was cut off from all aid from the neighbors as there was no way possible for them to reach his house. The water continued rising and the Doctor realizing the danger to the sick one, if the flood should cover the bed, tore up a floor plank, inserted one end in the wall under the bedstead, raising it half a foot, and placing the other end of the plank on a table, in this way kept his wife and children above the water. Meanwhile, trees, fences, and all kinds of debris went floating by. For three fearful hours it was expected every moment that the house would go, but it stood firm and the inmates were saved. About three o'clock in the afternoon the waters began to subside, and by daylight next morning had entirely disappeared. The terrible exposure through which Dr Strentzel passed and the further living in the damp house to which he was forced, brought on a severe attack of pneumonia, and for many days he lay hovering between life and death. Having naturally weak lungs he was left, on recovering, in a very feeble state, and to his death was never entirely relieved from the effects of that illness.

As soon as he was able to travel, the doctor resolved to leave the Merced river forever. He tried at first Santa Cruz, conveying his wife, by wagon, in a swinging bed, to Stockton, and thence by steamer, but, after six weeks sojourn in Santa Cruz, he found the climate unsuited to his weak lungs; and concluded to go to Benicia, attracted thither by the delightful climate and fine harbor. The state capital had recently been removed to that place and the legislature was then in session. Meeting an old neighbor from home, at that time residing in the town of Martinez just across the straits, he informed the doctor of a beautiful sheltered valley back of the town that he thought would suit him, as it had just the climate that the doctor was seeking. He immediately went over to see the place and was so charmed with it that he at once resolved to make this his future home. Here was a lovely fertile valley protected by high hills from the cold winds and fogs of San Francisco; a stream of living water flowing through it; the hills and valleys partially covered with magnificent laurel, live-oak and white-oak trees; and everywhere a green mantle of wild oats. Dr Strentzel knew at once that the valley was well adapted to fruit growing and he said to himself, "Here I can realize my long cherished dream of a home, surrounded by orange groves, and all beautiful fruits and flowers, where I can literally rest under my own vine and fig tree." He immediately purchased twenty acres, at fifty dollars an acre, of the richest valley land, two and a half miles from town, and removed his family thither, arriving on the 4th of April 1853. The valley at that time was known as "Canada del Hambre," or valley of hunger, so named by a party of Mexican soldiers sent by the governor of California to chastise some Indians, and who, failing to obtain sufficient provisions, in their disgust called it hungry valley. Mrs Strentzel was much displeased with the name, and remembering Irving's glowing description of the Moorish paradise, decided to christen the new home "Alhambra," and the valley has ever since been called Alhambra valley.

"It would lengthen this narrative too much" says Dr Strentzel, "were I to write of all the ups and downs, trials and vicissitudes, which I passed through during the first years of my long residence here, of the many difficulties I had to contend with in that early day in obtaining the right kind of seeds and trees for planting, often receiving invoices of trees and plants untrue to label, of the many losses and disappointments through inexperienced and unreliable help, but by energy and perseverance, and unremitting attention to business, I succeeded in overcoming all obstacles. When my first tract of land was filled out I purchased more, and continued to purchase when needed, or opportunity offered, and plant from year to year up to the present time. My brother remained with me until his death in 1865. He was very energetic, a kind-hearted benevolent man, and his death was a great blow to me. But the greatest trial of our lives was the death of our only son, a bright promising boy of nine years, who died of diphtheria in September 1857. For years, we were inconsolable. The light and hope of our lives seemed to have gone out with him. And now in our old age we feel the need of him even more than we did at first.

"Our daughter Louise Wanda was educated in Benicia, at the Atkin seminary for young ladies. She is intelligent and intellectual, a lover of the beautiful in nature and art, is passionately fond of flowers and music, benevolent and kind to every one, ever ready to relieve suffering, and assist in all good works, and is a most devoted mother. She is married to John Muir the well-known geologist and botanist, and has two lovely daughters, Wanda and Lilian. She always has been a great comfort and help to her parents. At her marriage I gave her the old home, and built for myself a new one down the valley, one mile nearer town. My faithful companion and I live very comfortably and quietly in our declining years. We have a commodious house with pleasant surroundings, in the midst of orchards and vineyards, in full view of Martinez and Benicia, and the two overland railroads, the central and southern Pacific."

In politics Dr Strentzel was a republican and always took a deep interest in the welfare of his adopted country, having an abiding faith in American institutions and the integrity of the union. The Chinese question should be emphatically met. He had no faith in creeds or dogmas, but believed in pure religion that teaches love to God and our fellow-men. He ever stood with open hands ready to assist in building churches and aiding all religious and educational institutions tending to the amelioration and happiness of mankind. He had a firm and enduring faith in immortality.

He took an active interest in the Grange from its organization as a social and educational institution, and believed that much good could be accomplished through it if the original inception of its founders could be faithfully carried out.

Mr Strentzel died at Martinez on the 31st of October, 1890, beloved, and his death lamented by all who knew him.

In person he was of medium height, slender build, blue eyes, brown curly hair turned very white, and florid complexion. He was earnest in conversation, abstemious in diet, not using alcoholic stimulants or tobacco. Throughout his whole life he endeavored to act fairly and equitably with his fellow-men in strict accordance with the golden rule; and always taking pleasure in assisting the needy according to his ability. Of late years, with his devoted wife, realizing that their work was drawing to a close, that their life's journey was well-nigh ended, they have felt that they were nearing the border land and calmly and peacefully awaited the summons to cross the river.

J D Stephens

CHAPTER XVIII.

LIVES OF JOHN D. STEPHENS—JOHN B. ROHRER—JEFFERSON G. JAMES—SAMUEL JACKSON—N. D. JULIEN—W. F. DOWNING.

John D. Stephens in the Valley of California—Cattle-stealing and Land-grabbing—John B. Rohrer as Miner and Stock-raiser—Jefferson G. James as Pioneer, Stock-raiser, and Prominent Citizen—Samuel Jackson as Miner and Stock-raiser—N. D. Julien as Merchant and Farmer—W. F. Downing as Dairyman and Citizen.

In this chapter I place side by side certain prominent men in about the same sphere of life, in order to bring out their several individualities in clearer and stronger light, for in comparative analysis there is often the most effectual work. Few of the first-comers, after the discovery of gold, engaged at once in agriculture. It was only after some mining or other experience, unattended perhaps by any marked success, that the possibilities of the soil for production, the country for absorbing, and of commerce for moving the products began to attract attention. And even then, when all else seemed to fail it may be, it was only the wiser and more thoughtful who were at all able to look far enough into the future to see what might some day be done in this direction, or even to dream that farming could ever at any time be better than mining or merchandising.

It is true that before the discovery of gold, the soil and climate were the chief or only attractions; but in the mind of the emigrant of 1846, or thereabout, the soil was not for cultivation, but for grazing purposes.

The great valley of California, particularly the northern and middle portions of it, was but little better than a wilderness, though one of the most beautiful wilds of nature that the sun ever shone upon, when there appeared upon the scene a party of emigrants, among whom was John Dickson Stephens and his associates from Missouri, who began to test the possibilities of that region for the maintenance of civilized communities. The superficial efforts in this direction had thus far been confined to the strip of seaboard extending from San Diego to San Francisco bays, where it was clearly proved that from a little scratching of the soil great returns would follow. But in the vast and sometimes called arid plain back of the Coast range the problem had yet to be solved whether or not cattle-raising and grain-growing could be made profitable. To the solution of this problem Mr Stephens early devoted his energies, and with what success will be fully shown by this narrative of his life.

John Dickson Stephens was born on the spot where now stands the town of Bunceton, Cooper county, Missouri, on the 23d day of September 1826. His father, Joseph Stephens, was a native of Virginia, and the son of Welch parents, who immigrated to America prior to the revolutionary war. His mother, *née* Catherine Dickson, was the daughter of Josiah and Isabella Dickson, both of whom were born in Scotland, and of old-fashioned presbyterian stock, which probably had some influence in imparting to him many of those high principles of honor and integrity which he possesses. The elder Stephens removed to Missouri in 1817. He was in comfortable circumstances, and a successful stock-raiser and farmer in a then sparsely settled portion of Missouri. During the years of his youth, therefore, John had but few associates beyond those of his immediate relatives. He was one of twenty-four children, and the offspring of the second wife of his father, who had four sons and five daughters, of whom he was the second child.

His father was a man whose character was unimpeachable, and his word was as good as his bond. While exercising stern discipline in his family and instilling the strictest moral principles, he was not averse to engaging in such recreations as were appropriate, pleasing, and healthful. At that time the surrounding country was infested with wolves, foxes, and deer, and the settlers frequently engaged in the chase, meeting together for a day's sport. He kept a large pack of hounds, and a number of good horses—horse-breeding being, indeed, an industry as well as a pastime—and these expeditions were looked forward to by the young folks with the greatest pleasure.

Young Stephens acquired his education at a private school, as at that time there was no public school in this section of the state. It included all the higher English branches, though his tastes and ability inclined to mathematics. His tutors were trained instructors, and men of learning. After completing his course, he taught school for two years, up to 1846, when, war with Mexico having been declared, his patriotism led him to join the service, and he enlisted in a company then being organized in Cooper county, Missouri, of which his relative, Joseph L. Stephens, was elected captain, and he was chosen first sergeant, being mustered into service at St Louis in June 1846. About this time news was received that General Taylor had gained an important victory, and the company was ordered home to be held in readiness for active service, though it was never called upon, and at the close of the war was disbanded.

Mr Stephens then commenced the study of medicine, which he diligently pursued until the news of the discovery of gold in California created such an excitement in the Atlantic states that he determined to investigate the matter. With his brother, George D., and a few relatives, he joined a company of mountaineer trappers at Independence, consisting of about forty-five persons, and the party was so thoroughly mounted, equipped, and organized that the trip to California was one of pleasure rather than a hardship. They travelled by the way of South pass, Fort Bridger, and Salt Lake, and were piloted by two of Frémont's men, one of whom was Captain Cosgrove. Reaching Sacramento August 1, 1849, they went immediately to the mines near Mormon island, on the American river, and commenced operations with the pan and rocker. The net results were not satisfactory to John D. Stephens, as he could earn only about eight dollars per day, and after spending about one month in the mines he passed the winter in Sacramento and Yolo counties, examining the country with a view to raising cattle. The Yolo plains were covered with wild oats and other grasses, and there were but few white men in the county at the time. William Gordon, J. R. Wolfskill, William Knight, and Paddy Clark were the sole residents of that portion of the country west of the tules. Stephens selected his land, and settling in the valley near the present town of Madison, entered upon the business of cattle-farming.

When leaving his home, he and his brother had taken the precaution to bring with them sufficient money to carry them back, but after a year's residence in California they became so attached to the country and the climate that they had no desire to return, and decided to sell their farms in Missouri.

In the year 1850 Mr Stephens tested the qualities of the soil for producing small grain, and his experiment proved a success. He planted a crop of barley, though merely for feeding stock, for at that time the market was too far away to think of raising grain for shipment. This was about the first trial of the capabilities of the land for the cultivation of cereals in this section of the state, and the yield was abundant.

In 1851 John D. and George D. Stephens, John

Q. Adams, and John S. Jurey purchased about a league and a half of the Mexican grant known as the Rancho Cañada de Capay. This is considered the choicest piece of land in the county, situated in the valley below the mouth of Capay cañon, with Cache creek running through it. The same parties were interested with him in raising cattle and other stock, though in the management of all their affairs, he took a leading part, and they continued to prosper, making frequent trips to Missouri for cattle, mules, and horses, until with the decrease in mining and the increase in farming, the business became less remunerative. In 1856 Jurey sold his interest in the grant to the Stephens brothers, and a few years later, that of J. Q. Adams was transferred to them, and to a kinsman of the latter. To avoid annoyance from squatters, John D. Stephens repaired to Washington city and secured a patent for the land.

In the early days in California cattle-stealing and land-grabbing were considered crimes demanding capital punishment, and lynching the usual mode of execution. Mr Stephens was connected with one case of lynching a thief who had stolen cattle from him and his neighbors, and one wherein he defended a neighbor against four land-grabbers, when two of them were seriously shot. In both cases he was tried by the lawfully constituted tribunal and honorably acquitted.

After ceasing to raise cattle on an extensive scale, Mr Stephens and his brother established an agency in Ohio for the purchase of fine horses and brood mares, which were brought to California, and with this was combined the business of raising mules, which was also a source of profit, valuable animals being bought for this purpose. Mr Stephens has been tireless in his efforts to improve the grade of his stock, and on their extensive ranch can now be seen fine stock of all descriptions, including game chickens, swine, sheep, Durham cattle, mules and horses.

During the year 1856 he purchased and drove to his rancho about two thousand head of sheep from Rowles & Rawson, who were engaged in the business on land now covered by the city of Oakland. This was the first attempt at sheep husbandry on a large scale in Yolo county. From its first organization till 1864 he was a constant patron of the state fair, and was always successful in securing premiums on the merits of his fine stock. As an instance of his pride in the way of improving stock, he and his brother bought the celebrated Southdown ram "The World's Prize," which had taken the premium at all the important fairs in Europe, including those held at Berlin, London, and Paris prior to 1860. It was imported by Mr Taylor of New Jersey, and for this animal Mr Stephens paid $2,000, shipping it to California in 1862.

On the first of April 1861, Mr Stephens took passage on a vessel for New York, having with him his wife and daughter, for the purpose of visiting Missouri. They travelled by way of Nicaragua, and after leaving Greytown, the officers of the vessel were astonished at the scarcity of sails on the ocean, which astonishment increased until they arrived in New York harbor, and learned that the civil war had begun in earnest. From New York they proceeded to St Louis, via Cincinnati, and the sound of fife and drum and the call "to arms" were heard at every station on the way. Being a man of keen observation and excellent judgment, he was not slow in making up his mind as to the final result. During his stay at his old home in Cooper county he witnessed some exciting scenes, as that part of the state was, at the time, the seat of war, and within a few miles of the place he was visiting were fought the battles of Boonville, where General Lyon drove Price to Wilson creek, and of Wilson creek where Lyon was killed. The noise of cannon at Boonville was very distinct, and stragglers from the army passed the house, terror-stricken and demoralized. He remained in the east until the following autumn, and after placing his daughter in a female seminary at Tipton, Missouri, returned to California. In 1862 he again visited the east, this time going by way of Panamá, and remaining during the following winter and spring.

In his political creed Mr Stephens has always been a democrat, as was his father before him; the latter being a great admirer of Jackson and Benton, after whom he named two of his sons. Though never a candidate for office, he has always taken an active interest in national, state, and county politics. He considers that of all the modern statesmen, Samuel J. Tilden and James G. Blaine stood at the head of the two parties in point of ability. Though a firm supporter of his party, he thinks that honesty, integrity, and ability should control in the selection of all civil officers.

His theory in regard to labor and capital is that their relations should be reciprocal, and that where invested capital is receiving but a moderate income, labor should be regulated accordingly, and the burdens of one borne equally by the other. He is also of opinion that a tariff, framed solely with a view to revenue, would be the most beneficial to the government. His ideas in regard to railroads, which he considers the most dangerous of monopolies, are, that the power which grants franchises, whether state or national, should have the right to regulate them and adjust all differences arising between the corporation and the people. Aggregated capital in corporate bodies is dangerous because it remains intact, while that which is in the hands of individuals is distributed at their death.

The question of immigration he regards from the true American standpoint, and is in favor of checking the constant influx from Europe of the pauper element now crowding into the United States. He is also of opinion that a law restricting the immigration of Chinese, though not entirely in sympathy with the present law, is essential to the welfare of the country, and that by the time the Mongolian population shall have disappeared, through the operations of the existing law, the Caucasian race will be educated to take their places in the workshops and other branches of industry, but that a sudden expulsion would prove disastrous. The elective franchise, he thinks, should be securely guarded by some qualification that would insure a responsible and intelligent use of the ballot. He believes that the perpetuity of the government is based upon the social equality of citizens, and hence no aristocracy, in the usual acceptation of that term, can ever exist in this country so long as it remains a republic. The true aristocrat is the individual of good morals, strict integrity, noble instincts, and high resolves.

While thus entertaining sound practical views as to the affairs of the nation, his own enterprises and liberality have contributed in no small degree to the welfare of the state. In 1859 he organized the Capay Ditch company, of which he was appointed president, for the purpose of conveying the water from Cache Creek cañon to the valley, whereupon a preliminary survey was made, though actual work was not begun until the dry season of 1864. During that year several miles of ditch were constructed, and a few years afterward the canal was sunk to a level with the bed of the creek at its headwaters; and since that time water has been used by the people for irrigation. It is about ten miles in length, terminating near the town of Madison.

In 1864 he went to Virginia City, Nevada, taking with him a considerable amount of capital wherewith to operate among the business men and miners. There were others occupying the same field, and while taking stock as surety they would often go to bed rich and arise poor, their security having faded away during the night. After an experience of three years, Mr Stephens was justified in entertaining a fair opinion of his financial abilities, for he found that he had as much money remaining as he brought with him to Virginia City.

Returning from Nevada, he made an overland trip to San Diego, in company with Major Wilcoxson, in search of grazing lands. Not finding sufficient inducements, he returned to Yolo county, where he decided to organize a bank in Woodland, the county-seat, and a flourishing town of about one thousand inhabitants. He presented the subject to a few of the more wealthy citizens, who seemed to be favorably impressed, and, as his custom was to act promptly, the capital was at once subscribed, and the Bank of Woodland was established and incorporated in 1868, with a capital stock of $100,000. The officers elected were John D. Stephens, president; F. S. Freeman, vice-president; and C. W. Bush, cashier. The business was a success from the start; and the capital stock has gradually increased from time to time until it reaches the sum of $921,000. Since the organization of the bank it has been under the direct management of Mr Stephens, who has held office continually, and his administration has been so entirely satisfactory that none of the stockholders have ever desired a change. During this time, also, all the first officers of the bank have been retained except the cashier, whose position is now held by C. F. Thomas, elected in place of Mr Bush. Since the organization of the bank over $900,000 have been paid in dividends.

Mr Stephens has always been a liberal patron of educational institutions. He assisted in establishing at an early day the Hesperian academy, in Woodland, is still a member of the board of trustees, and when it was incorporated as a college, and an endowment was asked for, he headed the list with a donation twice as large as that of any other subscriber. To all benevolent enterprises he has been a liberal giver, and but few churches in Yolo county have been erected without his financial aid. While not a member of any church organization, his assistance has always been extended to these civilizing institutions. He has been a member of the masonic fraternity for about thirty-five years, and is a charter member of the Woodland Commandery of Knights Templar, of which he has occupied the position of Eminent Commander. He is also a member of the Sacramento Society of California Pioneers the California Historical Society, and has been a member of the Union Club of San Francisco since 1883.

In 1871 the Pneumatic Gas company of San Francisco attempted to furnish light for the town of Woodland, but after an unsuccessful run of a year or two, the works were purchased by a home association, of which Mr Stephens was president, and under the new management coal gas has been used with success.

In 1872 J. W. Peek undertook by his own individual enterprise to furnish water for the town, and after succeeding in putting the works in operation, the supply proved both costly and insufficient; Mr Stephens again came to the front, and, with two other enterprising men, furnished an abundant supply, sufficient for all demands for steam fire-engines, and domestic use.

As to the future of California, he thinks that her beneficent climate and productive soil will induce many to come to this coast who may prefer to reside here permanently, even at a sacrifice of business interests, and that within twenty years real estate values will increase one hundred per cent over what they are now in this section of the state. He believes that within that time the population of California will not be less than 3,000,000.

Mr Stephens was married on the 4th of January 1854 to Mary F. Alexander, at Bellair, Missouri. His wife's family were of Scotch descent, and settled in Virginia at an early day, the city of Alexandria being named after her grandfather. A native of Kentucky, whence the family removed in 1845, she is a highly educated and accomplished lady, possessed of remarkable dignity and grace. Three children were the issue of this marriage, of whom the two youngest died in infancy, and the surviving daughter is now living, the wife of Joseph Craig, at one time state senator from the tenth district of San Francisco, and at present a member of the board of state prison directors.

Mr Stephens' home in Woodland is a neat and tasteful abode, built in the most modern style, with large and beautiful grounds occupying an entire block in the southern portion of the town, and standing in the midst of a forest of shade-trees. Around it is an orange grove in full bearing, with magnolias, palms, cedars of Lebanon, and almost every variety of trees, including native oaks, while the lawn is covered with blue grass and a carriage drive of concrete stone leads from the street to its front. His house is well furnished with every comfort and in his trim and well-kept garden-plat flowers of every variety bloom in season.

Among his tastes is a fondness for relics, and from every portion of the world in which he has travelled he has samples of their peculiar products. His cabinet of curios is one of the richest and most complete in the country, and he has specimens from all the rich gold and silver mines, together with most of the minerals of this country ; molten lava from the crater of Vesuvius and Kilauea, and costly paintings from his native and other lands. While in Honolulu he purchased one of the masterpieces of Travernier, a picture of the burning lake in the crater of Kilauea.

In physique and appearance he is a man five feet ten inches in height, and with a compact and well-knit frame, his weight being one hundred and eighty pounds. His features are regular, with a broad, capacious forehead, steel-gray eyes, light brown hair, full whiskers, of a light color, and both hair and whiskers tinted with gray. From his father he inherited great firmness of character, with principles of the strictest rectitude, and habits of economy; and from his mother, a kind and liberal disposition; for, while he holds in high appreciation the honor and dignity of true manhood, his benevolence and liberality have ever been conspicuous. He is not what might be called a fluent conversationalist, but expresses his ideas briefly, and to the point. He is never taken by surprise in conversation, is a ready reader of character, and makes but few mistakes in his estimates. In business he is punctual and is generally better satisfied when he attends to it himself. To this may be largely attributed the fact that he has never engaged in any enterprise that has not been a success. He has strong sympathies for the unfortunate and is always ready to extend relief to the distressed, though no one will ever know the extent of his private charities, while many have felt them, for his liberality is proverbial. He has been the promoter and patron of almost every work of public necessity and improvement in the town of Woodland, and to none of the pioneers is northern California more deeply indebted for the development of her manifold resources.

While Mr Stephens has been very successful in his business ventures, he has not been so deeply immersed therein as to deny himself all pleasures and recreation, having travelled extensively both in Europe and America. In 1876 he attended the centennial celebration at Philadelphia, visiting nearly all the Atlantic states and Canada, and was present at the democratic national convention at St Louis, which nominated Samuel J. Tilden. In 1878 he took a trip to Europe, visiting the ancient ruins, wonders, and curiosities of the old world. He travelled in England, Ireland, Scotland, France, Germany, Belgium, Switzerland, Italy, Austria, and Prussia, and was particularly interested in examining the famous battle-field of Waterloo. During his stay in Paris, he celebrated the Fourth of July in company with other Americans. In 1881 he made a trip to Chicago, together with W. G. Hunt of Woodland, combining business with pleasure. In 1883 he visited the Yellowstone National park, going by way of Salt Lake, and returning by the Northern Pacific railroad, visiting Oregon, Washington, and British Columbia. In 1885 he attended the New Orleans exposition, and also made a tour of several of the southern states.

In 1887 he accompanied the masonic expedition to the Sandwich islands. During his stay there he visited all the principal cities and towns and the natural curiosities of that group of islands, including the famous volcano of Kilauea and the crater of Haleakala.

In 1888, in company with a number of Woodland and San Francisco friends, he made a trip to Alaska for the purpose of investigation and to see the wonders of that country. He visited Glazier bay, Sitka, Fort Wrangel, Juneau, and all the points of interest as far north as Chilkat, inspecting the celebrated Treadwell mine with its 240-stamp mill, and studying carefully the peculiar industries of the natives.

Although Mr Stephens has passed the meridian of life, and has been actively and energetically engaged in large business transactions, laying the foundation for still grander developments, he retains a very remarkable fund of vitality, both physically and mentally. His will force is powerful and vigorous, and having achieved success by a persistent endeavor to combine the social and physical forces which surrounded him in the work of progress, he does not consider his labors ended so long as his natural abilities can be employed to advance the best interests of the state of his adoption. By the labors of men of such mould has California emerged, in a short space of time, from a wilderness to a magnificent empire, where the highest development of manhood and civilization must eventually find a home.

A PROMINENT pioneer, agriculturist, and cattle breeder of Siskiyou county, California, was John B. Rohrer, who was born on the 2d of February, 1830, in St Bleis La Roch, a village of Alsace, then an integral portion of France. His paternal grandfather J. J. Rohrer, born in 1752, was a soldier, and served in the army which, under the Comte de Rochambeau, was sent by France to the aid of the North American colonies in the struggle for independence. He was present at the battle of Brandywine, and witnessed the surrender of Lord Cornwallis at Yorktown. On his return to France he married Margueritte Bertran, from which union were three children, two of whom died in infancy. The surviving son, also named J. J. Rohrer, was drafted into the army at the age of twenty, and served until the defeat of Napoleon at Waterloo, marrying afterward Mary Ann Halter. Having always in mind the glowing descriptions he had heard of the United States, as soon as he was able he set forth with his family, on the 1st of April, 1845, travelling by wagon to Havre de Grace, where they took ship for New Orleans, reaching their destination after a passage of sixty-one days. From New Orleans they went first to St. Louis, and later to Peru, in Illinois. Unable to speak the English language, but full of confidence, they settled themselves to make a home. The country at that time was new, and the nearest market was Chicago, to which city Rohrer was soon engaged in hauling grain. The worthy couple managed to live with some comfort, and had several sons and daughters, named respectively Mary Ann, who died in 1845; John B.; Rosalie, who married Edward Retz of Somonauk, Illinois; Louis, Celestin, and Constantine.

After his father's settlement in Illinois, John, then a lad, procured work in a hotel in Ottawa, earning $8 per month, which he contributed toward the support of his parents. Several months afterward he rejoined the latter, to work on their farm, or where-

John B Rohrer

ever occupation was offered him. In the spring of 1849, like many others, he became seized with the gold fever; but it was only in March 1850 that he was able to leave home with the approbation of his parents. With a yoke of oxen, his clothes packed in a grain sack, a gun on his shoulder, and some $12 or $13 in his pocket, he started for the land of gold, reaching the valley of Great Salt Lake in harvest time. Here he worked about two weeks, with the choice of $5 or one bushel of wheat per day. He chose the wheat, exchanged it for flour, and again pursued his course westward, arriving in California in the latter part of August.

While mining at Hangtown he was seized with a violent fever which almost brought him to death's door, but recovering he went to San Francisco, and after a short stay there to Yreka. In company with Joseph Jarrad he located a mining claim on the Deadwood, where they spent the winter, making some money. During the next summer he left the mine in Jarrad's charge, and in Jacksonville, Oregon, established with others a bakery, which yielded good profits; but he soon tired of it, sold his share, and returned to Yreka. Jarrad, in his absence, had abandoned the mine, which was occupied by others, to whom it eventually proved a rich acquisition.

Rohrer now became interested with one Dejarlais in a pack-train, running from Jacksonville to Weaverville. In the spring of 1853 the partners moved to little Shasta valley, then luxuriantly covered with wild rye. Rohrer concluded to take up land, and with a companion, their goods packed on a mule, encamped close to little Shasta river, that name being given by him to both the river and valley. He built of logs one of the first two houses erected in that valley. The first wheat sown cost him $2 per bushel in Oregon, and was packed on mules for $2.50 per bushel. In partnership with Dejarlias and one Monier he purchased 30 cows at $50 each and started a dairy; they also brought from Oregon 200 chickens, paying for them $1 apiece, all of which investments proved profitable, eggs selling at $2 a dozen and butter at $1 a pound. In 1857 Rohrer exchanged his interest in the farm for cattle imported from Oregon. That year, early in the fall, having received a letter from Illinois that his mother was very ill and wished to see him before her death, he set forth overland, and in less than a month reached the old home, to find it closed, his mother having been dead three weeks. This shock, together with the severe cold weather, prostrated him on a bed of sickness. He finally returned to California in the spring of 1858. In September of the same year his father also died, from the effects of an accident.

Rohrer drove his cattle into Butte Creek valley, which was covered with the finest of bunch grass, but feared to tarry there in the winter because of the hostile Modocs and Klamaths. These red men came over the mountains into little Shasta and stole horses from various persons. Rohrer joined an armed party in pursuit of them, but found the Indians posted in force too strong to be attacked. Later another party, also including Rohrer, and commanded by R. M. Martin, without any serious loss, secured some of the stolen horses, capturing besides a number of firearms.

Rohrer's severest experiences were during the time that he had his live-stock in Butte Creek valley, and while driving the animals where they could find grass. This was deemed a dangerous undertaking, for which reason he could procure no assistance. He succeeded at last in securing the aid of one man in driving the cattle to the top of the mountain, not a hard task of itself, the snow being frozen; but there the real trouble began. The cattle took the trail around by Grass valley, and neither Mr Rohrer nor his assistant could get around them; all they could do was to follow, and breaking through snow-covered brush succeeded in getting out a portion of the stock, leaving the rest to their fate. Rohrer camped two nights with only his saddle-blankets to cover him. On starting he had some oats in a sack for his horse, a few biscuits for himself, and a hatchet. The first night he found a pine tree and was able to start a fire; the next day he lost the oats and biscuits, and his supply of matches became exhausted. Both man and horse suffered greatly from hunger and cold until, on the third day out from Butte creek, he reached Sheep rock, where he left his cattle.

During these years Mr Rohrer had many accidents, while engaged in branding cattle and riding wild horses. The most terrible one happened in Butte creek, when a cow threw him down and fell on him, breaking twelve of his ribs and crushing his breast bone. He had to remain there without medical aid or care, other than that of his brother Constantine, who had come out a short time before and tended him as best he could. At that time there was no other person in the valley. Three weeks having elapsed the injured man attempted to go over the mountain on horseback, but had to desist and wait two weeks longer before making a second attempt to reach little Shasta.

Thus it will be seen that Mr Rohrer's life has been full of incidents, even from childhood, some of them accompanied with no little danger. It is related by his earliest friends and acquaintances that while an infant, in Alsace, a heavy slide of falling snow burst through the doors and windows of his parents' dwelling, situated at the foot of a hill, and without touching his mother's bed, which stood in a corner, carried away little John in his cradle. Fortunately the scarf tied over the latter became caught on the limb of a tree, and the child was soon afterward found unharmed. Once he fell from a table and broke an arm and leg, and another time was swept into a mill-dam, where he was almost drowned. In his journeys in the northern valleys he was once shot just above the knee by a Modoc with a poisoned arrow. From the wound he sucked the poison, and thus saved his life.

Mr Rohrer's corral or cattle-pen was on the sink of Butte creek, where later lived Charles Boyce. Camping there one winter with stock he made his residence in a hollow log. He also had a camp at Sam's neck, where once occurred a battle with the Indians. The latter afterward burned his cabin. While leading this rough life he used to bake his bread on a heated flat stone, as he had seen the Mexicans bake their tortillas.

In 1861 Mr Rohrer purchased 320 acres of land, being a portion of the Home rancho. During the next few years he pursued here the occupation of a farmer in connection with stock-raising, and planted one of the first orchards in little Shasta with fruit trees brought from Oregon, still keeping stock in Butte creek, which he often went to look after. He also became interested in the Yreka Creek mining company, an enterprise which entailed a loss of about $10,000 in a few months and brought him heavily into debt. Had his creditors pressed him then, his ruin would have been inevitable; but his sterling character and industrious habits being well known he was given time, and by hard work and economy was enabled to save their interests as well as his own. During the time of his financial distress he labored day and night and furnished beef to retail butchers' shops, until they became deeply indebted, and he was obliged to stop supplying them and to open a shop himself.

In June 1868 he purchased a fourth interest in the Franco-American hotel of Yreka, and in 1874 another fourth, the business of which he managed until his death. In 1873, during the Modoc war, he hauled grain over the mountains to supply the United States troops stationed at the lava beds. One day, while on his return with empty wagons, he met General Gilliam and his men, who were mired on the south side of Ball mountain, the snow having thawed in places. Mr Rohrer extricated them from their dangerous position and helped them to their camp, receiving $25 per day for his services.

In 1874 he bought the Sheep Rock rancho, and also a dairy farm and stock in Grass valley, but afterward sold the latter. Later he added the Abe Grantlin tract to the Sheep Rock farm, which had become one of the best properties in the country, possessing the richest soil and the finest water privileges, with a living spring and a stream running through it. The apples produced on the place are among the finest in the state. It contains 420 acres, and with railroad land attached 1,000 acres.

The previous year he built one of the finest houses in the country, a mile north of his former residence, on one of the most beautiful sites in the valley, the ground gradually sloping south. He had water in abundance to make the place what it has become, with fine buildings, vineyard, orchard, meadows, pastures, and shade trees not only around the house, but along both sides of the road, making a cool and shady promenade. This is known as the Home rancho.

It is understood that for a number of years Mr Rohrer also loaned money at interest, and in this, as in almost every other business in which he engaged, success attended him.

Mr Rohrer was about five feet eight inches in height, with a strong frame, broad-shouldered and full-chested, weighing probably 165 to 170 pounds. His complexion and hair were dark, his eyes gray, and he always looked fresh and healthy. He married on the 1st of January 1872 Miss Elizabeth Jane De Long, a neighbor's daughter, who descended from good stock on both sides. Her father's father served his country as a soldier in the war of 1812–15 against Great Britain, and by his marriage had five boys and five girls. Mrs Rohrer's father crossed the plains in 1850, and for a time mined in several parts of California, lastly in the Shasta district. He then returned to his old home by way of Panamá, and on the 22d of February 1853 married Christiana Reed, whose father was a minister, and with whom he a second time came across the plains. He was shot with an arrow on the journey, but fortunately the wound was not a serious one. They went first to Salem, where the future Mrs Rohrer was born in 1854. Subsequently the De Longs moved to little Shasta, where they experienced many hardships, and were for a time in constant danger of being massacred by the Indians. They had four children—three girls and one boy—besides Elizabeth Jane. Mrs De Long died in 1886.

Mr and Mrs John B. Rohrer had five children, namely John Louis, born May 26, 1873; James B., known in his father's will as James J., born March 28, 1875; Adda Jane, born June 26, 1877; Minnie Elizabeth, born September 5, 1879; and John C., born August 13, 1881. The children, except James, resemble their mother's family. The father died on the 10th of September 1886. The Sheep Rock rancho was left to John Louis Rohrer, the eldest, and the Home rancho to James and John. The widow and daughters were otherwise provided for.

Mr John B. Rohrer, prior to his coming to America, had received some education in French, and in Illinois attended school three months, making fair progress. In after life he often devoted his leisure moments to the improvement of his mind, and took special pains to become well acquainted with the English language, and to acquire some knowledge of the Spanish. Toward the promotion of public instruction he was liberal with his means, and his school tax was always cheerfully paid. In politics he was a democrat, lending at all times a strong support to his party. But, though often assisting others into office, he never sought official position for himself; and it was only at the urgent solicitation of his friends that he served one term as a supervisor, discharging his duties with ability and zeal. For a number of years he was one of the board of directors of the agricultural society, to which he was appointed in 1882, and took an active interest in its affairs. He thought the Chinese were detrimental to the country, but objected to any ill treatment of those who were here. It is quite certain that he wished to see a more desirable class of laborers replace them

Mr Rohrer believed in the tenets of the Roman catholic church, in which he had been reared; but he was a charter member of an odd-fellows' lodge, and belonged also to the encampment. He often contributed money for the erection of churches, regardless of the religious sect for whose service they were intended.

In conclusion, Mr Rohrer was an intelligent, sagacious, industrious, energetic man, and one always attentive to his business. Throughout his life he proved himself just and upright. He was a kind husband and father, never severe with his children, and earnestly inculcating good morals and strict honesty, from the love of virtue rather than from motives of policy. His last advice to them was to be always dutiful and loving to their mother. He was witty and lively, generous and fond of society and all rational enjoyments. He invariably provided well for his family, preferring to spend his substance in plain, substantial living rather than in ostentation and display.

As a matter of fact, the first to leave the fascinations of mining and engage in agriculture in California not only deserve credit for nerve and foresight, but displayed besides the truest wisdom.

As indicating the extent to which the comparative capabilities of California for agriculture and stock-raising have been developed, it has become an interesting question among cattle-kings whether the time is not approaching when they will find much of their land too valuable for farming to be longer held as pasture.

Among the men who have figured in the development of the live-stock industry in California, Jefferson Gilbert James has been a conspicuous factor. He was born December 29, 1829, near the village of Spencerburg, Pike county, Missouri, a locality to which the Pacific coast is indebted for a number of valuable citizens. His father, John R. James, and his mother, whose maiden name was Elizabeth Thompson, emigrated there shortly after their marriage in Kentucky in the year 1820. It was a good neighborhood to live in, with hardy, upright, self-reliant, self-respecting men and women, capable of transforming a wilderness into comfortable homes. At first families were widely separated, and each was largely dependent upon itself. Everybody worked, and worked hard; there was little gossip, and small opportunity for it. Universal hospitality prevailed, however, and the latch-string was always out. Now and then there was a log-rolling, or a house-raising, and then there was the regular general muster day, on which occasions the men came together for work and for sociability. The women had their quilting parties, and once a year there was camp-meeting. The common schools were the only means of education. The log-house that served for the school-house was also the church.

Mr James' ancestors were of English stock, and were among the early settlers of America; his father was a Virginian, and his mother a Kentuckian. The former was a man of marked character, and educated above the ordinary standard. He went to Missouri as school-teacher and farmer, but did not teach long.

J. G. James

He was a typical pioneer, of stalwart, sinewy frame, energetic, industrious, and intelligent. Familiar with certain books, he was also handy with tools, and could mend or make. Respected for his integrity and judgment, he possessed considerable influence, and was frequently called upon to arbitrate among his neighbors. For years, also, while the country was in a sparsely settled condition, he drew up wills and practised medicine.

His wife was a woman of excellent traits, earnest, intelligent, devoted to her family, and fit in every way in her sphere to supplement the life-work of her husband. They were both scrupulous in the observance of duty. She was a member of the Campbellite church; he was not, but was an ardent admirer and student of Alexander Campbell. They brought up their children by example rather than by intimidation, making their home attractive for them, and inculcating in them a wholesome regard for the right. Evidence of this is to be found in the character of their children. Of the seven who survive, three daughters and three sons are respected members of society in their native state.

From his father and mother Jefferson James inherited sterling qualities of mind and heart. His surroundings were of the very best to equip him for life in a new country. He started upon his studies when he was nine years old, but a good part of his day's work had to be done before he could take up his books and start out on a two-mile walk to the schoolhouse, and when he returned home in the afternoon his work began again, and terminated only when there was nothing more that could be done. He was never able to complete a school term, for such a boy as he in those times could ill be spared from the farm with regularity. Yet what a grand school is the farm itself! How many of the controlling, creative spirits, in every sphere of activity in the United States, are graduates of the soil. But Jeff, as he was familiarly called, became a fair arithmetician, and he read and digested, among other books, the history of his own country; and independently of school he cultivated the natural gift of swift off-hand calculation, which has been very useful to him in business.

His early aspirations were to follow in his father's footsteps, to clear off and cultivate a farm, and raise horses and mules; but some young friends of his had returned from California and brought good reports. He would try his fortunes here, too; his health was perfect; he was not afraid of hard work; his habits were good; he had full confidence in himself, and he was in his twenty-first year! He and his brother Thompson B., and his brother-in-law, James L. Alford, and George Ogle, harnessed a team of first-class high-bred mules that they had raised themselves, and started out across the plains. Their trip was not marked by any incident of special note except one, which served to show Mr James' independence and self-reliant disposition. They were in a train of some twenty-five wagons, the mud was deep and the crossings bad. In order to get along, even at a snail's pace, all hands would have to combine and lift one wagon after another over the soft places. But there were some who shirked. In crossing Raft river, Idaho, he and his three companions pretty nearly exhausted themselves, and that night, when they went into their tents, covered with mud, chilled to the bone, and sore, they sat down and talked over the situation, and determined that they would strike out for themselves. The next morning they bade good-bye to the departing train, and went to work and spent two or three days cutting up their wagon and converting the spokes of the wheels into the framework of pack-saddles. What they could not carry they threw away, and mounted. It was a wild rough ride they had that day. Their high-strung mules had never been under saddle before, and the rattling of frying-pans sent them a flying. Before going into camp, they made perhaps seventy-five miles, and passed some fourteen hundred lumbering wagons. They entered Hangtown, now Placerville, in August 1850. Mr James worked in the placers for eight dollars a day until September. He and his brother afterwards mined at Rocky Chucky bar until April 1852, each cleaning up $3,000 of gold-dust, with which they returned home by the way of Nicaragua. The latter invested his money in a farm and remained in Missouri; the former bought ninety young cows and drove them out to California, with the idea of going into the dairy business, but finding out ultimately that they had been made barren, he sold them, at a profit, for beef. This was the beginning of his career in California as a stockman, though he mined again from 1855 to 1857 at Coon hollow, in order to enlarge his capital. He and his partner, a cousin, William Douglas, made $5,000 each. With this money rolled up in blankets behind their saddles they rode across the plains to Los Angeles, where they purchased 960 head of cattle and a few horses. It is said that on the way down, one of their horses gave them the slip and took to the hills, carrying off half their capital; but fortunately he was recaptured. They brought their stock to what is now Kingston, then Bliss' ferry, and turned them out on the north side of the river. In the spring they rounded them up and drove them to the head of Fresno slough, which has been the home ranch of Mr James from that time up to the present day. He was one of the pioneer stock-raisers in that section. When he went into the country there were only a few settlers in the foothills, and the nearest postoffice was at the ferry, forty miles away. Wild Mexican ponies roamed the plains, unclaimed and worthless, and only now and then would a stranger pass by, driving native cattle from the south. Land was then free to all, for its use and the acquisition of title was not thought of until three or four years afterwards, at which time he purchased from the state, at $1.00 per acre, 640 acres of swamp and overflowed land, bordering the slough on both sides and controlling the country tributary to that water supply He was the first who came, and he had his choice of the rich meadows. By purchase he has added to his acres from time to time, until now he is the proprietor of one of the most extensive and lucrative cattle-ranchos in the state.

In 1860 he bought out Douglas; five years later he took in as partner, George F. Smith, who brought the Fish Slough farm into the firm, and in 1873 he bought out Moses Selig, who had previously purchased Smith's interest. The property comprises 57,000 acres, lying principally in townships 15 and 16, ranges 17 and 18, Fresno county; extending from two to four miles in width, and about fifteen miles in length, on either side of the great slough which receives the water of King, river and the overflow of Tulare lake, and empties into the San Joaquin river.

In the course of systematic reclamation the greater portion of the land has been drained, and the water controlled by head-gates and dams, connecting minor sloughs and by canals joining the larger ones. The principal canal, which connects Fish slough with Fresno slough, is six miles long, fifty feet wide, and from three to four feet deep, and it is being further deepened every year by the flow of the current on the bottom, ploughed up deep during the dry season.

Mr James depends altogether upon the wheat, wire, and marsh grasses, which are native. The first named has a deep tap-root, which keeps it growing nearly all the year. They are all sweet and nutritious and are first rate for growing stock and dairying. He has under lease something like 100,000 acres of grazing land, the greater portion of which joins the Fish Slough rancho; 42,000 acres are in San Luis Obispo county, where he fattens his stock for market upon alfileria. Out of 15,000 head of cattle which he has bred up from the original Mexican stock, to an average of half or three-fourths Durham, he brands some four thousand calves, and ships upwards of two thousand beeves yearly, to J. G. James and company, wholesale butchers, San Francisco, who slaughter from twenty-five to thirty beeves, and from ten to fifteen calves daily.

The improvements on the rancho consist mainly of fifty miles of fence, thirty-five miles of which are of boards, topped with wire, and fifteen miles of barbed-wire fence, redwood posts being used all along the line; commodious barns, dwellings, vaquero houses, blacksmith shops, granaries, corrals, six artesian wells bored to a depth of 800 feet, the largest of which yields 60,000 gallons per hour; and all other facilities and conveniences needed to carry forward the work of stock-breeding on a magnificent scale.

The great results thus accomplished, the facts show, are due to himself. They have been won by labor and good judgment, in spite of obstacles and hardships. In the outset troublesome and vexatious rodeos were necessary; many a weary night has he stood guard over his cattle, or lain down uncovered on the bare ground, sometimes in the pouring rain, to sleep if it were possible, and all this after a day of the severest toil and anxiety. And then the stock market, while generally good, has been at times demoralizing. The year 1864 was a dry one, and stockmen seeing their cattle die by thousands became panic-stricken and sold out, in some instances as low as five dollars a head. Mr James, however, had the foresight and the courage to buy. He lost a great many cattle himself, but out of the subsequent rise in prices he made a handsome profit on those which survived. The years 1867 and 1871 also were bad. From time to time there were cattle epidemics, but he has kept his stock free from disease, principally by having the water they drank always pure and sweet. It may be truly said that his is an instance of the survival of the fittest. In 1866 he removed his residence to Stockton, and afterward to San Francisco, where he has since continuously resided, looking after the business here, and making monthly visits of supervision to the rancho. In 1860 he visited his old home in Missouri for the second time, and then he made the best investment of his life by uniting his fortunes with those of Jennie L. Rector, an accomplished young woman whom he had known and admired from childhood. In the best sense she has proved a fitting helpmeet for him, a true wife, loyal, stout-hearted, affectionate, and good. The early part of their married life, begun in a two-roomed cabin on the wild plains of Fresno, was not an easy one for him, and less so for her. But with a cheerfulness never surpassed she took hold alone, keeping house and cooking for her husband and his men. While he bore the burden in open air, she responded to hers under the cabin roof. To-day, in the midst of comforts and having every luxury at command they recall with relish the jerked beef, broiled on a stick, and the coffee they drank from a tin cup.

Mr James was elected a member of the board of supervisors in San Francisco in 1882. Though on the democratic ticket, he received a large vote from the best elements, regardless of party. In this office he proved that the appreciation of his constituency was warranted. It was during his chairmanship of the street lights committee that the board declined, under the one-twelfth act, to expend more money per month than the sum appropriated; in consequence, darkness reigned in the city for a season of four months, but $80,000 was thus saved wherewith to meet more pressing needs. By his efforts the old corporation yard, with its accumulated rattle-traps, was abolished, and $7,600 thereby saved per annum. The committee on printing and salaries of the board, of which he was an active member, reduced the expenses of that department $50,000 a year. Mr James was a rigid supervisor, knowing no friends, and having no criterion but the law, and that literally interpreted. He was elected on a pledge to reduce taxation, and he redeemed the pledge.

The question came before the board whether the Park and Ocean railroad should be allowed to make a slight cut across each of two corners of Golden Gate park, a necessity in the construction of the road-bed. Had Mr James been disposed alone to court popularity, he would have voted against this measure, but he felt that the actual interests of those whom he represented required him to favor it. The real question was, whether a multitude of people, of small means, should be granted cheap transportation in order to enable them to reach the pure air of the ocean beach. The damage to the park, if any, was insignificant in the comparison.

Mr James was reared as a democrat, the straightest of the sect, and he has adhered to this faith, believing that in the main it is the best, but he has not been a partisan. For instance, though a southern man, he thought it unwise that California should be admitted into the union as a slave state, and he cast his vote accordingly. In the presidential campaign of 1888 he took a conservative stand between the extremes of free trade and high tariff, thinking that Mr Cleveland made a serious mistake in proposing such an issue, and that he would have shown better judgment had he advised congress as to the reduction of the enormous idle surplus in the treasury.

The popular confidence in Mr James was reasserted in his appointment to the board of education, to fill the unexpired term of Charles Kohler, deceased, and he was duly elected for the ensuing term, which began January 1, 1889. Into this office he brought the same rigid ideas of the responsibility of the public servant that had characterized him as supervisor, and by his earnest labor, gratuitously bestowed, he has shown himself to be not only a good and true man, but always the right man in the right place.

He is chairman of the finance committee, and a member of several other important committees.

Our school system he considers good, but he does not under-estimate the harm of political influence exercised in the appointment and retention of a proportion of unfit teachers. The only remedy for this radical fault he deems to be, first, the selection of disinterested, independent members of the board of education; and second, in giving to them the unconditional power of employing and discharging teachers. Although it has been Mr James' idea to stick to one thing, to which policy is doubtless due much of his success, he has gone aside in one instance. Of the Fresno Loan and Savings bank, organized in 1884 with a capital stock paid up of $300,000, a solid and flourishing institution, he is president and director, and a large stockholder.

He is a member of the Masonic order, of the United Workmen, and the Knights of Pythias, and takes a substantial part in promoting the benevolent ends of these charities. As regards religion, he is a firm believer in the authenticity of scripture, and is an ardent advocate of the moral teachings of the bible. He is not identified with any denomination, but has been a liberal friend to struggling church organizations, especially so in Fresno county.

Mr and Mrs James have but one child, the wife of Walter Coleman Graves, a Kentuckian of excellent family, liberal education, and a high order of talent, who is assistant district attorney of San Francisco, and actively engaged in the profession of law. Mrs Graves is a woman of exceptional culture, and possessed of rare personal charms. The grandparents take great pride and comfort in their bright and handsome grandchildren, Jefferson James, Walter Coleman, and Rector Graves, in whom their good traits bid fair to be transmitted.

In person Mr James, as he appears in his sixtieth year, is of rugged build, standing erect, five feet ten and a half inches tall, weighing 196 pounds. He is deep-chested, large-muscled, alert, and having led a wholesome life, still manifests the driving force which has characterized him heretofore. His hair, once brown, is now quite gray; his complexion, in boyhood light, wears the settled tan of exposure. His blue eyes beam with hearty good-humor, yet reveal a clearness of perception and a dignity of purpose that are impatient of trifling. With head thrown back as he walks, going straight to the point of his design, the spectator sees in him at once a man of business.

The main features of his character are indicated in his career. The name Jeff James has been synonymous with good faith and integrity in this state ever since he became known in it. In disposition he is large-hearted, generous, and kind. He is jovial in temperament and fond of timely humor, yet in his moods of thought he is best appreciated if left alone to work out his problems. He is a man who makes up his mind incisively, and acts upon his judgment at once. His will-power, his tenacity, and the thoroughness of his thinking and acting are elements that lie at the foundation of his success, as one of the creators of the wealth of this coast. I take him to be a man of well-balanced faculties and possessing a large share of common sense. By force of natural intelligence, assisted by a rudimentary education from books, he has grown by observation and friction among men, to a strong and leading position among the best people of the coast. In him is shown the success to which a man may attain, who learns from actual life and builds by self-help upon a solid intellectual foundation. To the aggregate of what men like him have done, we owe, in a large part, the extraordinary beginnings of a civilization on the Pacific coast, the tremendous future of which no one can do more than speculate upon.

Samuel Jackson, of Edgewood, California, was born in Frederick county, Virginia, on the 22d of January 1827, and descended from a remarkably good ancestry both in a physical and moral sense. His paternal grandparents, Josiah Jackson and Ruth Jackson, *née* Steer, were natives of Pennsylvania, and became man and wife in the same state on the 22d of March 1764, but after the birth of their first two children, Samuel and Grace, in Lancaster county, went to live on a farm in Frederick county, Virginia, where they had other children. It is understood in the family that the renowned confederate general Stonewall Jackson was their distant relative.

The family farm consisted of about 600 acres, which, on the demise of Josiah Jackson became divided among his children, the eldest son, Samuel, receiving for his share of the estate about fifty-three acres. It was on this small property that he lived till his death. Samuel took to wife Cynthia McVeigh, a member of a prominent family, on the 20th of May 1822, and there were born to them three sons, Benjamin Franklin, Samuel, Jonathan, and two daughters, named Margaret Ann and Ruth Grace.

Samuel Jackson, senior, measured six feet two inches in height, was strongly built; his wife was of medium size. He was a stone-mason and miller, as well as farmer. His death, at the age of eighty, occurred when his son Samuel was about sixteen years old, and that of his widow several years later.

The Jacksons lived in a modest way, but were able to keep hired men. Samuel, the second son, was ever treated gently by his parents, and allowed to follow his bent; he made himself very useful on the farm until he had completed his fifteenth year, meanwhile attending school in the winter without learning much while he was a small boy. After he grew old enough to appreciate the advantages of an education, his opportunities for acquiring it had become less. However, he learned to read and write well, and knew

Samuel Jackson

something of geography, but in arithmetic he did not go beyond the rule of three. The death of his father impressed on his mind the importance of an industrious life, such as his father had inculcated by word and example, and his elder brother being then absent the responsibility of carrying on the work of the farm devolved upon him, together with the care and support to some extent of his younger brother and sister. On his brother's return, about one year after, Samuel was engaged in various occupations which taxed his physical strength, endurance, and youthful ardor, though affording him only a scanty remuneration. At about the age of nineteen years he again assumed charge of the farm, his elder brother having gone west. His success with the farm and with some land rented from an uncle was such that his neighbors began to think him already on the road to wealth, though his net savings were not more $150 or $200 a year. His brother's return relieved him of the duties on the farm, and he worked for a grist-miller; and later at a steam saw-mill for low wages. At twenty-two he had attained both a high stature and powerful strength.

With his savings of $400 or $500 Jackson, in 1851, went west. In Illinois he procured work on a large farm, which was provided with the latest improved implements. Here he earned good wages, and became proficient in the use of those implements. Being now possessed of $500 or $600 he thought of a venture in Texas; but when on board the steamer at St. Louis he made the acquaintance of two men named John Foxworthy and William Heath, who informed him that they had been to California in 1850, and whose account of the country was such as to turn his mind in that direction.

With some assistance from these men, between whom and himself an attachment had grown up, he took passage on a ship at New Orleans for the isthmus of Panamá, and thence after a painful journey and much suffering from a severe fever, which almost broke his constitution, he finally reached San Francisco in October of 1852, and soon after repaired to Sacramento, and to a small place which had sprung up on the river, bearing the name of Hoboggan, where he worked for a time handling freight. This proving too severe for his still feeble health, he obtained employment in a bakery on J street, Sacramento, at $80 per month, his duties being to make himself useful in the bakery, and to convey provisions to Hoboggan.

At this time Mr Jackson was almost destitute of means, having had to pay for medical attendance at San Francisco and Sacramento. The people he now worked for did quite a large business, employing from fifteen to twenty men in the bakery. Jackson continued in this employment until January 1853, when his health being still quite precarious, he resolved to go north into the mountains, and to try his fortune in the mines. To be free from debt, and in the possession of $3,000, was at this time the height of his ambition, and this he hoped to accomplish within the year.

Mr Jackson's experience as a miner was not disappointing, but he was now seized with a restlessness which prevented his remaining long at any one place. His life during the following winter, which was spent in Shasta county, was, it is true, full of hardship and discomfort, and yet, by working only two or three hours of the day he could pick up from three to eight dollars. In the next spring he worked at Weaverville, and in the following June went to the French bar, about forty miles below Weaverville on Trinity river, where, in company with three others, he became part owner of a rich mining claim.

The partners made from $4 to $8 per day. They had a ditch that enabled them to work all over the bar which was of ten or twenty acres in extent. Jackson continued there until the wet weather commenced, and on receipt of glowing reports about the wealth of Siskiyou county, where, as it was said, a man could easily gather $100 worth of gold a day, together with some acquaintances he visited Yreka and looked for some promising claim, but finding none they went to Cottonwood, twenty miles north of Yreka, expecting better results. They walked with blankets, pick, shovel, and pan on their backs as far as Cole's, at the Oregon line, finding at Rocky gulch a good prospect. Their claim yielded rich returns; but provisions being high the net profits of their work in the winter and spring were only moderate.

Going to a place on the Klamath river named by him the Virginia bar, in honor of the state of his birth, they found a claim which soon afterward was exchanged for a horse and some money, where with others he took a claim, brought in a ditch of about a mile in length which, including tools and provisions purchased at Cottonwood on credit, cost $1,000, which indebtedness was duly covered, notwithstanding that their labor upon this claim met with no better success than an average of one dollar per day. Jackson and his partners finally abandoned the spot, concluding to go back to Trinity river, where they had a rich claim which a flood had compelled them to abandon in the winter. Before proceeding thither, however, as they had a month of spare time, they visited the south fork of Scott river, where in the three summer months their labors were amply rewarded.

Mining on the whole proving unsatisfactory, Mr Jackson went back to Yreka. This was in 1854. The company was dissolved, two of its members, Goodnight and Hopper, took up land, another betook himself to Humbug, and Jackson repaired first to Yreka and next to the Shasta valley. It was in this valley that he saw the place on which he has since lived. The land being good he purchased the claim from an old sailor, whose priority of right to it he respected though it had been virtually abandoned. The price paid for it was $150. The land had never been surveyed; in 1890 it was considered worth from $50 to $60 per acre. Leaving a hired man on the place to represent him and to make rails for fencing, Jackson worked in the mines at Greenhorn at $4 a day, his object being to make money enough for the purchase of seed and the necessary teams to carry on farming.

That winter proved a severe one, and no work could be done in the mines. Jackson and his man made about 7,000 rails, and when the snow was two or three feet deep they cut timber on the mountains and drew it down on the snow. In the spring Jackson went to work again in the mines for the same wages; his man meantime hauling rails and putting in seed, the owner lending a hand at intervals. In this manner a crop was raised of one to two acres of vegetables, and from ten to twelve acres of grain. Some onions were sold at $22 a hundred pounds, yielding $1,000, and the rest of the crop brought nearly $1,500 more. Grain at that time did not command a high price, as large quantities of it were produced.

Jackson remained on the farm, investing all the money he had in cattle, mostly cows, for which he paid an average of $75. This was in the fall of 1855. Butter churned on his place sold for one dollar a pound. The next summer he sold his crop at a good advantage and made money. He then let the farm, providing the tenant, who had no pecuniary means, with the necessary teams and seed, and returned to mining, buying out the interest of one of his former employers in a claim for $3,100 in gold, and working there for about two years. Mining possesses many of the fascinations of gambling. This claim yielded good returns, $1,000 being taken from it in one day. Mr Jackson was fond of fine stock and kept at this time a fast horse which won for him $500.

At the expiration of these two last years of mining life, Mr Jackson returned to his farm, and has since devoted his whole attention to agricultural pursuits, chiefly raising hay and live stock. He bought at different times the Bagley place of 400 acres, and the Arbaugh of 440 acres, and other lands adjoining, besides 200 acres in Squaw valley, and 160 acres more of timber land; so that he found himself the owner of about 2,150 acres. At one time he used to produce a great deal of grain, but finally turned his attention almost exclusively to cattle breeding. His family dwelling is a good, substantial farmhouse at the base of a hill, with pines back of it and fruit trees in front. He has ever thought highly of California climate and scenery.

Mr Jackson has a fine physique, standing nearly six feet two inches in his stockings, with a square, solid frame, and weighs about 175 pounds. His hair was originally brown and his eyes are of a bluish gray; the complexion is rather florid, and his manner of address slow, methodical, careful, and considerate. In character he is above reproach, with a course of conduct always marked by its straightforwardness. He is humorous in disposition and fully appreciates dry wit, uttering his witticisms often with a most serious countenance.

In his religious views Mr Jackson is a member of the society of friends, as were his father and other paternal ancestors: his mother was a presbyterian. He relates that until the age of eighteen, whenever a person mentioned a week day by its common name, as Sunday or Monday, he could not at first make out what day it was; he had been taught in the old Quaker fashion to name the months and days of the week first, second, third, etc.

Mr Jackson does not personally take much interest in politics, but likes to see his political friends successful, and often spends money to assist them into office. He has ever been affiliated with the democratic party, and yet, in 1860, cast his vote in favor of Abraham Lincoln, being satisfied that his favorite candidate Stephen A. Douglas could not be elected and not approving of the other two candidates. Throughout his life he has been a steadfast friend of the public schools, cheerfully paying his share of the school tax, which amounts to as much as the aggregate paid by all others in his district.

In his laborious life he has observed the rule of retiring early to rest, and rising at a reasonable hour in the morning. He entertains the belief that a man can do a good day's work in ten hours. The treatment of the men in his employ has ever been such as to win their good will.

Mr Jackson married on the 10th of January, 1861, Miss Caroline Sherrill, a daughter of Alfred and Margaret Sherrill, the father being a native of North Carolina and the mother of Tennessee. By this marriage the Jacksons have had six children, two dying. Those surviving are Thomas Jefferson, born August 31, 1863; Samuel Henry, born August 14, 1868; Alice Virginia, born March 8, 1870, and Jonathan Franklin, born July 1, 1872. As a most affectionate parent as well as indulgent husband, Mr Jackson in rearing his children has invariably used the influence of moral suasion and advice to make them understand from an early age the difference between right and wrong. His course has been rewarded with the happiest results, the sons being temperate, well-behaved, and attentive to their duties, Samuel Henry partaking more of his father's disposition; the daughter growing up dutiful and affectionate. All of them have had the advantage of a good liberal education.

From the foregoing narrative of Mr Jackson's life, the conclusion is reached that the state has been fortunate to have enrolled among her most worthy citizens one more living example of what industrious habits, sustained by perseverance, energy, and a sterling character may accomplish. Were there more such men greater progress would be made.

N. D. Julien

Among those whose career entitles them to rank with the builders of our western commonwealth is Mr Julien Neuschwander, or as he was called by his friends, and as we shall style him, Neuschwander D. Julien, the change of name being authorized by special act of legislature. Not only as a pioneer, but as one of the oldest and most substantial citizens of northern California, as one whose fortunes grew with the growth and prospered with the prosperity of his adopted land, it is but fitting that to him a place should be accorded in these pages.

A native of Petit-Buron, in the Canton de Vaud, Switzerland, where he was born on 4th of December 1812, Mr Julien's childhood was passed on his father's farm near Echallens. At twelve he was apprenticed to a butcher of that town, with whom he remained until seventeen years of age, making his own way in the world ever since reaching the former age. It was a hard life that he led during these five years, rising at four in summer, at five in winter, and after attending to his various duties, as the butchering of cattle and the herding of sheep, attending school and then returning to his unfinished task, meanwhile studying his lessons at such odd moments as he could call his own. But to a boy of his industrious habits and sturdy frame all this appeared not as a hardship, for all this time he was learning his trade, though receiving nothing for his labor except his board and clothing.

At the end of his term he engaged himself to another master at the wages of twenty cents per week, though soon increased to as many francs per month, for now, before reaching twenty, he was already known as one of the best butchers in his canton. After some further changes we find him at Soleure, where, partly to acquire a knowledge of the German language, he remained for several years in the employ of a man named Lutti, a member of the national council, by whom he was appointed his foreman. His next occupation was at Chaux-de-fonds, Canton of Neuchatel, Switzerland, with one Jacob Christen, his future father-in-law, whose affairs he helped to manage, not only in the butcher's business but as a hotel-keeper, and a wine merchant. Here he remained until 1842, when, to escape military service—since this portion of Switzerland belonged to Prussia, to serve which would be disloyalty to his country—he set forth for a tour through France, passing thence to Algiers, and on his return taking charge of Mr Christen's interests, according to his promise.

In 1844 Mr Julien set sail for America, his sole object being, as he frankly acknowledged, to make more money at his calling than was possible in his native land. A passage of forty-four days carried him to Boston, whence, after a brief stay in Milwaukee, he removed to Chicago, though with none of these places was he satisfied as a business centre, the great metropolis of the west being then little better than a village. At Chicago, however, he remained until the following spring, working at his trade in the employ of the packing-houses. The next three years were passed for the most part in Galena, Illinois, where his business increased so rapidly that he was compelled to admit a partner, Jacob Koehler, disposing of his interests in 1848 to him, for now he had resolved to go to California.

Before leaving Europe Mr Julien had read the early accounts of Alta California, and now to the interest which they aroused was added the excitement of the gold discovery. In November of this year, therefore, he started for the new El Dorado, travelling by way of New Orleans, and thence by schooner in sixty days to the Isthmus. Here, after long delay, he was fortunate enough to secure passage in a whaling vessel, after vainly offering $1,000 for a berth in the *California*, the first steamer that made the trip from Panamá.

Thus, early in June 1849, he landed in San Francisco, where, as he related, there was but a single frame building, the property of one Jacob Riebstein, whose friendship he had made in Galena. Lumber at this date was worth one dollar a foot, though in the following spring to be had at $75 per thousand, and as yet the future metropolis consisted only of a straggling array of tents and adobe huts.

Mr Julien was now a man of thirty-six years of age, and though possessed of but a slender capital, was gifted with qualities that could not fail to insure success, with industry, persistence, integrity, with strength of body and mind, and with a strength of will that nothing could bend from its purpose. Moreover, he had travelled much, had gained a thorough knowledge of the world, had acquired an insight into the actions of men, and had learned above all how to take advantage of his opportunities. Thus both by character and experience he was admirably fitted for the struggles and vicissitudes of pioneer life.

At Sacramento, whither, intending to engage in business, he sailed on the first vessel that made the trip from San Francisco, he met with his friend, Riebstein, who was the owner of a store at Rose bar on the Yuba, and now invited him to become his partner. This offer he accepted, remaining until near the rainy season, when, both being taken sick, they disposed of their interests. During the autumn they purchased some $20,000 worth of property at Nicolaus and other places, where soon afterward they built a hotel, which at first rented for $350 per month, and early in 1850 could have been sold for $50,000. A few months later it could not have been disposed of for $10,000, so rapidly did values rise and depreciate amid the changing fortunes of the mining-camps.

In sore disgust Mr Julien offered to dispose of his share for $1,000, and to this Mr Riebstein agreed. Thereupon, with two new partners, and a company of seventeen in all, he set forth for Mexico to purchase cattle, horses and sheep for the California market. Through the desert he journeyed more than ninety miles without finding one drop of water, travelling from Guaymas to Tina Jalta, and paying for wild cattle $15 per head. With these he returned by way of Lower California, driving his stock to Yreka, where he arrived in September 1851. Through the carelessness of one of his partners the entire herd, together with nearly thirty horses, valued in all at $9,000, was soon afterward raided by a party of Modoc Indians. Nevertheless here he remained, following his trade, dealing in cattle, and engaging in general merchandising, for though at this date Yreka was a city of tents and log huts, it was none the less a thriving business centre. At the time there were already nine butchers in the town; but by putting down the price of meat to ten or twelve cents a pound, while cattle on the hoof were selling far above these rates, the wealthiest of them got rid of all his competitors—all, that is, save Mr Julien, whose store he attempted in vain to purchase. As the latter firmly refused either to sell out his own or buy the other's interest, it was finally agreed to advance the price of meat. Thus the business became remunerative, and in the summer of 1856 Mr Julien found himself possessed of an estate valued at $60,000.

And now he resolved on a trip to Europe, partly for his health's sake and for rest, and also to revisit the home of his childhood, his father having already passed away, bequeathing to his wife and children little except his good name. For his mother and those of the family who required it Mr Julien made ample provision, and after a stay of nearly one year returned to California, where, except for the destruction by fire of a valuable store at Yreka, his business, had prospered.

Soon afterward he turned his attention to farming and farm lands, becoming the owner of a tract of 880 acres in the neighborhood of Yreka, and of one of 560 acres adjoining the reservoir near Yreka, of one at Sheep Rock, of one in Scott Valley of 653 acres, and later at Oregon slough of 1,120 acres, and in the state of Oregon of the Antelope tract of 1,040 acres. On some of these properties he raised wheat, oats, barley, potatoes, and other vegetables, together with an abundance of fruit, and with their returns, except in occasional seasons, was fully satisfied. Of the future of Siskiyou county, and indeed of northern California, he entertained a most favorable opinion, believing that this section can support, and will ere long contain, a dense population, with its advantages of the soil and climate, its ample rainfall, and its plentiful supply of timber.

In the bank at Yreka Mr Julien was largely interested, owning a one-fifth interest, valued at $30,000. As a private capitalist he also did much to promote the welfare of his fellow-citizens, giving to many a poor man his start in life, and never refusing assistance to those who were in need. If at times his benefactions were unworthily bestowed, thereby entailing losses already exceeding $100,000, for this he cared but little, satisfied if in one half these instances the recipients proved deserving of his bounty.

In politics he was a democrat, yet cast his first ballot for President Tyler, and in the election of county and local officials voted for whomever he might deem most eligible, altogether irrespective of party. Though more than once urged to accept the nomination as supervisor, he would never allow his name to be used, having neither time nor inclination for the cares of office. On the tariff question he held liberal and common-sense views, believing that sufficient revenue should be collected for all legitimate purposes, but not for the encouragement of monopolies, or for the accumulation of an unwieldly and cumbersome surplus. To Chinese and pauper immigration he was strongly opposed, believing that the former, reaching us by way of Mexico and British Columbia, is still fraught with mischief to the state. But of immigration of the better sort, that of the industrious, intelligent, and law-abiding classes, we cannot have too much. As to the labor question he apprehended no further serious trouble, for nowhere in the world is labor so amply remunerated, and here the laborer who fails to better his condition has none but himself to blame.

In religion he was a member of the Lutheran church, as were his parents and ancestors, though tolerant of all protestant sects, and subscribing freely to churches of various denominations.

During his trip to Europe in 1856–7 Mr Julien passed much of his time in the household of the late Mr Christen, whose death had but recently occurred. To his daughter he was married at San José in 1860, this estimable lady coming to California in charge of a mutual friend, and not at the time as an affianced bride. The names of their children are, in the order of their birth, Gladys, Julien, Lilian, Edward, and George. All of them except the youngest, who is but thirteen years of age, being born Centennial day, 1876, have received a collegiate education, the eldest son passing three years at the Benicia college, and six months at Heald's Business college in San Francisco, the second daughter graduating at the State Normal school at San José, in the class of December 1888. All are, moreover, possessed of excellent habits, as might be expected with such parentage and training. Of Julien, who will probably succeed to the management of his father's business, it should also be remarked that he is a natural mechanic, and has inherited no small measure of his sire's unbounded capability for work.

In 1890, in his seventy-seventh year, Mr Julien was one of those well-preserved men whom a strong constitution, careful habits, and an active outdoor life had in a measure protected from the encroachments of time. Of medium stature and portly frame, with ruddy complexion, brown eyes and smooth-shaven face, on his massive features were the impress of strong intelligence, sagacity, and power of will. In manner and address he was quiet, methodical, and collected, seldom giving way to excitement and still more rarely to anger, though strong in his affections and dislikes. There were few men who led a life so rational and peaceful, and few at his years were less burdened with the infirmities of age. Retiring to rest about eight o'clock, he arose at five or six, and, when business required, at an earlier hour, passing most of the day in some light occupation, as the watering of his garden or the irrigation of his meadows. A constant reader, as are all the members of his family, much time was passed in the company of his books and newspapers, of which latter he subscribed for at least a score in the English, French, and German languages, in all of which, as also in Spanish, he read and conversed fluently.

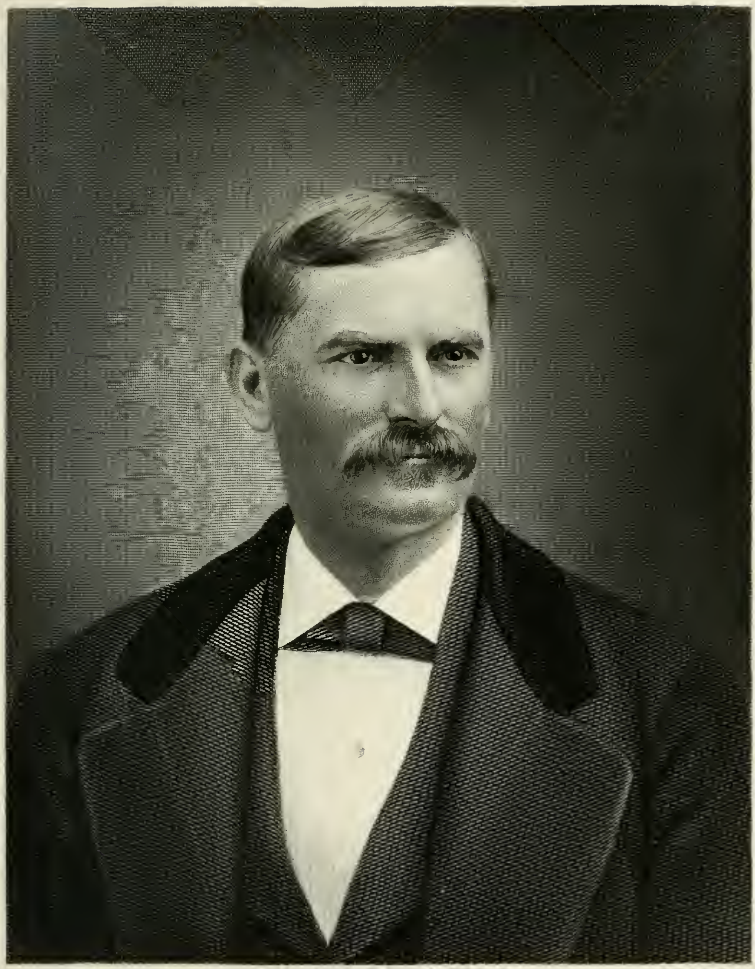
One of the earliest settlers in Yreka, at a time when it consisted merely of a cluster of tents and cabins, he saw it develop, largely through his own aid, into one of the most thriving towns of northern California. Well might he, as one of the most respected citizens in the county and state of his adoption, as one held in esteem by his fellow-man, not only as a citizen, but as a father, a husband, and a friend, look back without cause for regret on a useful and well-ordered life, and await without dread the rest that shall be its reward.

Mr Julien died on the 17th of January, 1891. The influence he exerted during life will long remain. If it be true that no good act ever dies, how much more must the results of a good life stand forever.

There is, perhaps, no surer indication of a superior mind than the tenacity of purpose which changes not amid all the vicissitudes of fortune, never loses heart or hope while under her darkest frowns, and at length, overcoming all obstacles and wearing out all opposition by sheer force of will and perseverance, arrives safely at the bourne whither it would be. Nowhere have these qualities been more fully developed or displayed to better advantage than on the Pacific coast, and many there are whom the Norseman's crest of the pickaxe, with its motto, "Either I will find a way or make one," would well befit.

Of the privations, hardships, and dangers encountered by the earlier settlers on this coast, half the story has never been told, though a relation of them, could such details be collected, would form one of the most interesting records that have yet been presented to the world. All honor to the memory of those whose lives were passed amid these stirring and perilous times, and by whose enterprise a wilderness has been transformed into one of the fairest portions of the earth. Well worthy of a place among them is the late William F. Downing, one of the pioneers of the centennial state, and one whose later career in Nevada and California it will be one of the purposes of this biography to describe.

A native of Newark, Missouri, where he was born on the 20th of April, 1838, Mr Downing is by descent a Kentuckian, his grandfather removing in 1827 to the former state, where, also, his grandmother, Susan Downing, after her husband's decease, supported the family by the practice of medicine. At that date this portion of Missouri was but a sparsely settled region, for the most part still unreclaimed from its primeval condition, and lacking in all modern facilities. From Newark the nearest postoffice was more than fifty miles away, the nearest mill an equal distance, and there was neither church nor school within reach of the settlement. But on both sides Mr Downing's



W. T. Downing

ancestors were of the true pioneer type. men inured to hardship, men of courage, purpose, and perseverance; men of decided convictions withal, and ever fearless in stating and upholding them, how unpopular soever for the moment they might be. From them he inherited the strength of will, the decision, resolve, and unyielding determination which were conspicuous among the traits in his character.

To Absalom R. Downing, the father of our subject, were born ten children, all of whom lived to years of maturity. A farmer by occupation, an elder of the presbyterian church, and a man of sterling qualities, there were none among the early settlers of Newark whose memory is held in more respect. Though a slaveholder, as were many of his neighbors, at the outbreak of the civil war he openly avowed his sympathies for the union and against the institution of slavery. Four of his sons served with distinction in the federal ranks, one of them being killed at the battle of Newark, within half a mile of the family homestead. His wife, née Susan A. Fresh, now in her seventy-fifth year, is the daughter of a physician and farmer of Maryland, where he was one of the earlier colonists, removing thence in 1834 to the neighborhood of Newark, in which vicinity still reside several members of the family. By all who know her Mrs Downing is universally esteemed as a devout and earnest Christian woman, one whose life has been spent in doing good, and whose self-abnegation is in perfect keeping with her faith.

The boyhood of W. F. Downing was passed on his father's farm, and in the midst of the plain, unassuming, hardworking community which has made this section of Missouri what it is to-day. Accustomed from childhood to labor and to endure privation and hardship, he received his early training amid the hard conditions incidental to frontier life. His opportunities for acquiring an education were of the poorest, though such as they were he used them to the best advantage. Often he walked to his school, a distance of three miles, barefooted, and in the coldest weather; but in that school there was no more diligent and faithful student. In summer he was required to work on the farm, and even in winter the school was sometimes closed through want of funds, for two or three seasons in succession. With all these disadvantages, however, it must not be inferred that he was by any means an illiterate man, for in later years he fully supplied by reading and by observation the deficiencies of his earlier days. Moreover, he received from his parents the strictest moral and religious training, and was taught above all things to be honest and truthful, which qualities he afterward displayed in all his relations with his fellow-man.

Until twenty-one years of age he remained on his father's farm, when the glowing reports of gold discoveries in Colorado induced him to join the tide of migration setting in the direction of Pike peak. His outfit, supplied by his father, was of the simplest, consisting merely of an ox-team with a few scanty equipments, apart from which his worldly effects did not amount to twenty dollars. In company with his half-brother, James H. Kelly, with whom he afterward shared the dangers and hardships of western life, he started across the plains, arriving at his destination without serious mishap. His experiences as a miner were most discouraging, for even with the closest economy and the hardest of work he often found himself penniless, and even in want of a meal. Notwithstanding the urgency of his need, however, he would not dispose of his outfit, and as he was unable to pay for it, returned it to his father.

During this and the following year thousands of disappointed gold-seekers returned to their homes, discouraged and disgusted, but, as we have seen, Mr Downing was not the man to be easily discouraged. If he could not earn his livelihood as a miner, then he would do so by chopping wood, or whatever else his hand might find to do. Thus, in the spring of 1861, he had accumulated a small amount of surplus funds, and now he resolved to set forth for California, taking with him Kelly and another companion. On reaching the golden state the party divided among them their possessions; and here of two of its members we will take our leave.

In California Mr Downing's first occupation was on a dairy farm, in the neighborhood of Oakland, where at the end of a year he had saved enough to purchase a team and hay-press, with which he began business for himself. Thenceforth, with his economical and industrious habits, never allowing himself to be idle, but accepting whatever work was offered, he began to accumulate money more readily, and in the spring of 1866 had at his command the sum of $2,000, wherewith he engaged in the cattle trade, purchasing cattle in Utah, and driving them to market in Nevada or California. His partner in these transactions was a Mr Alexander, with whom, two years later, he began the business of stock-raising in Elko county, Nevada. In 1870 the interest of the former was purchased by Henry Curtner of Alameda county, and soon afterward the firm of Downing & Curtner became known as among the most prominent cattle farmers in Nevada, its operations being greatly enlarged, though entirely under the personal control of Mr Downing, aided by the sound advice and judgment of his colleague. Under his able management the business prospered, without any serious reverses, from the inception, until in 1881 the partnership was dissolved.

In the autumn of this year Mr Downing, now in possession of a moderate competence, invested the greater portion of his means in land in Santa Clara county, California, where he again engaged in stock-raising and general farming, in 1886 being the owner of a fine estate of some 2,300 acres, on which he had then adopted what is termed the coöperative plan. This system proved successful, and his possessions steadily increased until, early in 1887, when his death occurred while yet in the vigor of manhood, and after he had become one of the wealthy men in the valley of Santa Clara.

A thorough business man, and, what is more, a thoroughly worthy man in all his relations in life, he enjoyed in the fullest measure the confidence of his friends and associates. After repeated failures and reverses, such as would have discouraged men of common mould, the indomitable perseverance and power of will which from childhood were his strongest characteristics finally overcame all obstacles, and placed him at length on the road to success. Among the causes which led to his prosperity were the promptness and punctuality with which he attended to all of his affairs, and his fullest appreciation of the value of time, completing each day his daily task, and never allowing work to accumulate on his hands. In private life he was known as a man of genial and social disposition, warm-hearted, charitable, and given to hospitality, though simple in all his tastes and habits, preferring to all other society that of his wife and family. By those who knew him during his early struggles, and when in later life he had won repute and fame and wealth, it was remarked that his manner and bearing did not change in the least with his changing destiny, and that while he endured with fortitude the buffetings of adversity, he was never unduly elated by the other extreme of fortune. The physical advantages with which Mr Downing was gifted were no less remarkable than his rare mental and moral attributes. Tall of stature, more than six feet in height, but with an erect and soldier-like carriage, broad-chested, and with a vigorous and well-developed frame, fitted to the toil and hardships of his earlier days, he was a man whose appearance, once observed, would not be readily forgotten. Dark of complexion, with hair of dark-brown hue, in his lustrous, piercing eyes, his thin, firmly clasped lips, and his ample and lofty forehead were indicated the intelligence and force of will which raised him from a lowly position in life to a foremost rank amid a community noted for its many eminent men.

In politics Mr Downing was in early life a democrat, but on the outbreak of the civil war his opposition to slavery and to the cause of the confederacy induced him to join the republican party, and to that party he ever afterward adhered, using all his influence in favor of the union during the years of her sore distress. A firm supporter of his political creed, he was never in any sense of the word a politician, never seeking or accepting a nomination for office.

At his sightly and tasteful residence in the Santa Clara valley still resides the woman who shared his lot in life, and to whom he entrusted in his will the management of all his affairs. A native of Kentucky, whose ancestors were among the earliest settlers in the state, Mrs Downing, née Annie B. Berry, removed with the family to the vicinity of Newark, and as a neighbor and schoolmate was acquainted from childhood with her future husband, to whom she was married on March 23, 1876. Their only child, George Lucas, whose birthday was the 22d of April, 1879, is a bright, intelligent boy, possessing in a marked degree the leading characteristics of both his parents, and one on whom the mantle of his father has descended not unworthily. Never, perhaps, were man and wife united by stronger bonds of sympathy, for in many traits of character, as in their high resolve, their tireless energy, their strict integrity, their soundness of judgment, their economy, and the simplicity of their tastes and habits, they closely resembled each other. A sincere and earnest Christian, and richly endowed with the first of all Christian graces, giving freely not only to the cause of the church but to any cause that she deems worthy of support, Mrs Downing has won for herself the esteem and good-will of all her wide circle of acquaintances.

CHAPTER XIX.

LIFE OF EDWARD BURT PERRIN.

FAMILY HISTORY—CHARACTER OF PARENTS—EDUCATION—MAN OF LETTERS AND AFFAIRS—REMARKABLE REAL ESTATE CAREER—PRONOUNCED AGENCY IN HORTICULTURE—IRRIGATION—POWERFUL FACTOR IN DEVELOPMENT—ENERGETIC AND USEFUL LIFE—A STRIKING CHARACTER.

THE Perrins of South Carolina were of Huguenot origin, and came to that state at a very early day. The Burt family, of English descent, were likewise among the early settlers of the pet colony of England. The Perrins of Abbeville and the Burts of Edgefield district were people of prominence and influence in the south. Among the latter was Armistead Burt, for years a member of the house of representatives; among the former, Thomas Perrin, who cast the first vote for secession in the South Carolina convention, and at whose house the cabinet of Mr Davis, president of the southern confederacy, had its last meeting —a singular identification with the beginning and the end of the terrible war between the states. Edward Burt Perrin, as his name suggests, is a scion of both these families. He was born January 12, 1839, in Greene county, Alabama, on his father's plantation, known as Burton's hill. It was a noted place in that section—a sandy hill much more elevated than the rest of the country, and surrounded by rich prairie lands. This property was acquired by Dr George Gwin Perrin, the father of Edward Burt Perrin, who was a native of Abbeville district. After graduating

E. B. Perrin,

with great credit from the college of South Carolina, he obtained his degree of doctor of medicine, Dr Dudley, a celebrated physician of Kentucky, being one of his teachers. Removing to Mississippi in 1829, he practised there successfully, notably during the cholera epidemic of a few years later. In 1836 he removed to Greene county, Alabama, where by diligence and skill in his profession he acquired what in those days was considered a fortune, his estate consisting chiefly of the valuable plantation referred to.

Owing to very hard work and exposure in his practice, his travelling being almost altogether done on horseback, he died when but 48 years of age. The immediate cause was a carbuncle on the back of his neck, which the attending physician treated in a manner contrary to his patient's advice. Dr Perrin, as those who remember him know, was a man in every way fitted for eminence in his profession. And as a pioneer, he possessed those qualifications which were calculated to make him generally useful, and to give him a large influence and control in his day and generation. He was tall, standing six feet two inches, erect, admirably built for strength, quick and active. His hair and eyes were a deep black, and his complexion rich, clear, and florid. His personnel was in all respects both agreeable and commanding.

In his youth he was assisted by an uncle, Robert Perrin, who, appreciating his superior intellect and his excellent moral traits, took a great interest in assisting him to acquire a liberal education.

With the acquisition of his medical diploma, Dr Perrin was too wise to think that his knowledge of the profession was sufficient. He was always an earnest and zealous student, craving wider and more accurate information and greater proficiency in the practice of medicine, considering whatever additional skill or knowledge he might acquire only as another point of departure toward the highest development in his profession.

About his only capital was his learning and his talents, than which, however, there can be no greater or more substantial estate. But added to his ability and industry as a practitioner, he was eminently practical, and possessed a large knowledge of affairs and a fine faculty for business, so that while he attained an eminent position in the science and practice of medicine, he was scarcely less conspicuous for his success in agriculture. Having a large surplus from his professional income, and his wife being heiress to a handsome property, he was enabled to make extensive investments in land, which he did judiciously, thereby adding considerably to their fortune. A man of progressive ideas, the individualizing trait of his character was, perhaps, that he lived much in the future. Using all present means discreetly to accomplish practical possibilities, he was in no sense visionary. He had no hobby, but was not one of the great majority who are limited and governed by circumstances and conditions as they exist. His turn of mind was prospective, and his plane of thought was above that of most others of his day and acquaintance. That he lived in advance of his times and environment, in thought and action, goes without saying. It can be readily inferred, therefore, that, enjoying a wider range of vision, dwelling less upon the past and studying the political prospect with less local precision and conventionality than they, he should foresee the clouds of sectional strife. Dr Perrin owned a large property in slaves. There were many other wise men in the south, learned and accomplished in various ways, into whose minds the thought had never entered—who, lulled into a sense of security by overconfidence in the stability of this aristocratic institution, and too proud to be unprejudiced, would not, or could not, entertain the thought of emancipation as in the remotest degree possible. In other words, there were but few of the many brilliant and diplomatic men of the southern states who did not live in heedlessness of possible harm and loss on account of slavery. Self-assured, and naturally so by long and constitutional usage, in the ownership of slaves, and untroubled as to the sovereignty of the states, they were mostly of one mind on this subject. But Dr Perrin, philosopher and sociologist, untrammelled in his thinking either by his prejudices or his material interests, took a logical view regarding the permanency of the institution of slavery. When most of his neighbors, in the midst of affluence, thought only of enjoying their property, never fancying the possibility of organized assault upon their vested rights, he forecast (not in form, but in outline) the trouble that would come, and he expressed himself conservatively in regard to his fears. So convinced was he of the evil to come that he would have disposed of his slaves and lands and removed to St Louis, which he believed would be a great city, but he was deterred by several considerations from taking this step. Had he sold out all his property in Alabama and reinvested there, as he was strongly inclined to do, he would have become one of the wealthiest and most influential citizens of Missouri as certainly as effect follows cause. But his family were loath to have him abandon the locality which had become endeared to them by many associations; he, too, was strongly attached to the people and the neighborhood, and it was difficult to sever the professional ties which bound him to the place. He would gladly have withdrawn from the practice of medicine, so great a tax was it upon his vitality, but it was fated that he should die in the harness. It was said of him that he worked himself to death. Upon whatever he was engaged, his profession or in other affairs, he concentrated his strength and worked with all his energy.

His views were broad and generous, and he strove to improve and enlarge whatever he took part in. It seemed to him contrary to economic principles that cotton should be transported thousands of miles, to the north or to Europe, to be manufactured; there was every argument in favor of manufacturing the raw material in the locality in which it was produced, and no reason against this policy. Nor did he believe, as others did, that it was impracticable to utilize the labor of negroes in the manufacture of cotton fabrics; but it was impossible to put this policy to practical test by individual effort, and general concert of action could not be had. In the application of this idea to national industry, he favored a thoroughly American system or plan, the substance of which is, that the United States should be self-supplying, self-sustaining, and industrially independent, especially as regards manufacturing. To the extent practicable, he carried his views into effect on his own plantation. He raised his own mules, horses, and cattle; tanned his own leather, and converted it into boots and shoes. So, also, out of the cotton and wool that he raised, he had all the coarser cloths made that were worn on the plantation. While other plantations paid nothing or ran into debt, his yielded a profit. Though his ideas were in advance of the times, and not always in accord with those of his neighbors, he was nevertheless regarded as a most desirable man to represent them in the councils of the state, so much so that being solicited to become state senator, he was accepted by both parties, democrats and whigs, being a whig himself, and no candidate was put up against him. He was not infrequently called upon to arbitrate among his neighbors, who had such confidence both in his integrity and his judgment that his decisions were always final. As showing his candor and freedom from local bias, the following incident may be cited: At dinner one day, at which several Alabamians of Greene county, subsequently prominent in California affairs, were present, a discussion arose as to the comparative healthfulness of Alabama and California, reference being rather to the doctor's own neighborhood in the former state. When the question had been discussed at length, pro and con, it was unanimously agreed among the gentlemen who had taken part in the debate to leave the decision to Dr Perrin. After dinner they were walking along the road, when the familiar form of the doctor, mounted on his old black horse, approached. They made him halt, and laying the matter of their dispute before him, he decided at once in favor of California. In all things his thoughts and acts were in accordance with principle. His course was inflexible and unequivocal, and, according to his best judgment, equitable. Slavery he accepted as he found it: an institution sanctioned by the highest law and hallowed by the general use of nations from time immemorial; but he looked upon slaves as a responsibility, requiring him not only to do all that could be done for their physical health and welfare, but to give them every means of moral and religious education. Every Sunday morning he required his negroes to assemble, and read and expounded the bible to them.

He was eminently conservative, practical, and cautious; dealing with the past for the light it sheds upon the future, his horizon of thought went in all things beyond the present. Realizing that it is the unexpected that happens, he kept his house always in order, obviating emergency by anticipating it. Shiftlessness he regarded little less than crime. His fortune would be ample for the support of his family, in elegant ease, indefinitely, under ordinary circumstances. It did not seem necessary that his sons should be prepared to make a living; they must be educated liberally, of course, in order to take their place in society as gentlemen. But Dr Perrin's idea of the matter was that of the practical philosopher. When his sons Robert and Edward were boys he exacted from them the promise that they would each acquire a profession as the sure means of an independent living. He would leave them a competency, and he was not ambitious that they should strive for wealth; but there might come a crisis, and he foresaw it when they would be thrown upon their own resources.

On frosty mornings, for the sake of hygiene he required his sons to rise very early and feed the sheep. Also, after the slaves had ploughed and prepared the ground, he had them plant it in cotton with their own hands, thus taking an actual lesson in farming. The proceeds of the crop went to them as an incentive.

Unselfish and true, his life was a blessing. A friend dying without means, he takes the orphans into his family and brings them up as though they were children of his own. He was a very strict member of the baptist church, and he was especially a friend of education. He provided several scholarships in the Howard baptist college, at Marion, in Perry county, Alabama, for young men without money. Such, in brief, was Dr George Gwin Perrin. A man of great force, dignity, and worth, wise and benevolent, his life was exemplary for its goodness and usefulness.

His wife, whose maiden name was Adeline Burt, was born in Edgefield, South Carolina. She was educated at the school of Dr Marx, in Columbia, her advantages of culture being the best afforded at that time, which were not inferior to those of the present time, though perhaps less varied. She was a woman of excellent natural traits, of strong mind, and a great fund of practical wisdom. To the delicacy and refinement of her sex, of which she was a noble pattern, she added knowledge of human nature and affairs, and an executive power such as is notable even among men and is rarely found among women. Her administration of the affairs of the large estate left by her husband, and the care of her household, could hardly have been better in his hands. Possessing marvellous self-control, never disconcerted by anger, her judgment was deliberate and sound. Her agents in the management of plantation affairs she chose wisely, and reduced the entire business of the place to a system. Her counsel to her children was invariably for the best, such was her knowledge not only of what was right morally, but of what would be for their material advantage. They grew up accustomed to rely upon her sage advice, for they, above all others, appreciated the depth and unselfishness of her thoughts. Her knowledge, her benevolence, her actual christianity, in a word, her exalted character, made her an ideal wife and mother. Her life and her husband's were veritably one, never an intimation of controversy or selfish difference. Coming to California in 1869, their son Edward and her other children devoted themselves to promote her comfort and happiness, but there could be no other home to her like that she had left back in Alabama. She passed away in February 1888.

Her brother, Philip Burt, a man of extraordinary character and ability, gave up successful cotton planting in Green county, Alabama, to come to California with the Perrin family, with whom he lived until his death in 1878, admired and respected by all who knew him for his wisdom and his goodness.

These are some of the antecedents of Edward Burt Perrin. His environment in youth was exceptional, and in a high degree conducive to the formation of character. The neighborhood—the tongue of land between the Tombigby and the Warrior rivers—was composed mainly of men of large wealth, refined and cultivated families, a typical before-the-war southern community. Money and commercial affairs were not discussed except during hours and at the places set apart for business. The people's minds were concerned in the development of the country and the news of the day, the literary productions of the times; the problem was, how to live in the wisest and most agreeable manner. Good-fellowship and hospitality prevailed. The rule of conduct was honor; there were conflicting opinions regarding religion, politics, morals, and society, but as to that standard there was no difference. Such communities were peculiar to the southern states; in which, ordinarily, slight anxiety was felt to enlarge the scope of inherited estates. Acquisitiveness was the exception rather than the rule. More care was devoted to the expenditure of income than to the accumulation of riches. Business was not allowed to obtrude beyond strict limits. A high-bred and generous sociability prevailed. Under whatever roof a friend found himself he was at home. Inhospitality was unknown. Welcome was spontaneous among acquaintances of the upper class, while a stranger, properly presented, was received as a prince. Conversation at table, around the fireside, on the streets, was the invariable pastime and recreation—a style of conversation, informal and unstudied, but which, involving all that men do, think, or feel, became, by long habit among refined and cultured people, a distinctive accomplishment and art. Every topic of interest to humanity was thus familiarly discussed and made easy, rather than kept hid in the mind for exclusive use, in public address, lecture, or printed treatise. The conversation of such scholarly men, in which difficult things of science, philosophy, and art are reduced to their simples, was freighted with wisdom and seasoned with wit. I am not unaware that the fact of superior excellence and charm in conversation has been noted as characteristic of southern men and women. I refer rather to the cause of this phenomenon, which I apprehend to be in their habitual and unhampered interchange of ideas in every-day intercourse.

The leading men of his state were frequent guests at the house of Dr Perrin. Alabama, during the time he was maturing into manhood, and indeed before, had attracted to her, from the older southern states, many young men of character and talent filling important places in professional life. No state in the union was settled with a more select, intelligent, and energetic population.

Such were the parentage, the society, the environment, than which no conditions are more potent in the formation of character and the modification of human life, which influenced the development of Edward Burt Perrin, the subject of this biography. The children of Dr and Mrs George Gwin Perrin were, in the order of their ages, William, Robert, Edward Burt, Mrs Dr G. F. Thornton, whose husband, educated in medicine, but not a practitioner, is a capitalist and largely interested in stock-raising with his brother-in-law, E. B. Perrin, in Arizona; Mrs B. B. Minor, a widow, whose husband was at one time secretary of the Southern Pacific railroad company; George Perrin, a gallant confederate soldier, who, at nineteen years of age, was killed near Pollard, Alabama, while leading a charge against the union forces, at the head of a cavalry company composed of college cadets.

Edward Burt Perrin inherited traits of character from both his mother and father, but in personal appearance resembled his mother. Fortunate in natural equipment, it was no less to his advantage that he grew up under the influence of excellent parents, upon the model of whose lives to fashion his own. The capabilities and virtues which he derived from them and were developed in him under their example constitute the elements of his character. Withal, nevertheless, he possessed an individuality of his own—a distinct, personal force, the nature of which can only be learned by a study of his acts. Comparatively unrestrained from childhood, subjected to no formal discipline, he imbibed from the wholesome atmosphere of home his ideas of right and wrong. Not that his judgment was always correct, or his impulses always judicious; for instance, while at home on a vacation from college, he would have entertained some young friends more lavishly with wine than his mother thought discreet. Her veto was final, however, and he met his disappointment gracefully; for so ardent was his affection for her, and so great his appreciation of her wisdom, that when she forbade he cheerfully acquiesced.

Theodore M. Porter, a graduate of Princeton college, and educated for the ministry, had a small private school in the neighborhood, but lived at Dr Perrin's house, and taught the Perrin children there. Edward was ambitious, and not only took lessons at home in the evening, but would attend the school besides.

He was eager, and strove to be first in everything, nor was he deterred by any odds against him. There were two boys in his class who were much older than he, but he could not endure the thought of their being in advance of him in Latin, and in order to overtake them, he took his Virgil home and studied far into the night, accomplishing his purpose, but injuring his health. He was very fond of the classics and he was a thorough student. The lessons he learned he digested completely, hence he was master of the knowledge he acquired, his information accurate and certain. One of his earliest recollections was the impression made upon him by Solomon's prayer—a supplication for wisdom. This impression was confirmed by observing that so much of which men complain is due to ignorance. He studied so as to be sure of what he knew, realizing that confusion is worse than error.

Once a visitor came to a public examination at his school and asked him to give the declension of *domus*, which he did. Said the inquisitor: "Did you make a mistake?" "No, sir," was the firm and really unpretentious response. "I think you have," was the positive rejoinder. "No, sir; I am sure I have not," said young Perrin; and the grammar being consulted, he was found to be correct. There was no general system of public education in the south at the time in question, except in the form of district schools, which were regarded as a charity, and were rarely attended by any but the children of parents who could not afford the expense of tuition. Parents in better circumstances had their children taught by a private teacher, in private schools, and in the colleges and universities at home or abroad. With rare exceptions, the distinguished men of the south were educated according to this régime.

When fifteen years of age, Edward was thoroughly prepared to enter the college of South Carolina, the standard of which at that time was quite as high as that of any other college in the United States. It was the pet institution of a rich and liberal state, devoted to higher education, and was most generously endowed. Its library was large and choice, and kept up with the advancement of literature, from year to year, by munificent appropriations. Its corps of professors was of the highest type for learning and character. Among them were Dr Lieber, afterwards president of the university of New York, Dr Thornwell, and John and Joseph Le Conte, whose erudition and skill as teachers have done so much for the reputation of the university of California. Dr Lieber's celebrated treatise on political economy and Joseph Le Conte's books on geology are too well known to require more than a reference. The moral tone of the college was very high. A dishonorable act was not tolerated among the students. A student found guilty of falsehood was banished from the society of other young men, and compelled to withdraw from college. Calbreith Butler, now United States senator from the palmetto state, who was a college-mate of young Perrin's, with some other mischievous fellows, engaged one night in what the boys called the "black ride." Hurling before them blazing cotton balls saturated with camphene they presented a weird and grotesque appearance as they rode masked through the campus and filled the air with harrowing sounds. The faculty called up all the students to testify as to what they knew about the ghostly masquerade, but the tacit understanding among them was that none should tell. Edward, who, however, had taken no part in the disturbance, declined to speak, and with a large number of other students, was suspended for six months. Meanwhile he attended the university of Alabama, and returning after the suspension term, graduated in 1859. For excellence in scholarship he was appointed to deliver an address at commencement. This was the form in which his college conferred honors. But Edward was quite averse to public speaking. He had endeavored to shade down his examination papers so as to avoid an appointment, but he did not shade deep enough, and the distinction was thrust upon him. He managed, however, to escape the ordeal of declamation through the clemency of his friend, president Longstreet.

During his course in college, which was thorough and creditable at all points, he had become betrothed to Miss Ann Tremlet Herndon, a sister of the late Colonel Herndon, member of Congress from the Mobile district, Alabama, and a cousin of the wife of the late President Arthur, a most charming and accomplished lady, whose family enjoy a national reputation for beauty. He was very naturally anxious to consummate so eligible an engagement; but he had bound himself by a promise to his father that he would get a profession, in order that, if need came, he would have a sure means of an ample and genteel livelihood. In pursuance of this idea he returned directly home and went thence to New Orleans. At college he had taken a course in chemistry and had given special attention to those other studies which bear upon the science of medicine. With this start he hoped he would be able to cover the prescribed medical course of study in one instead of two years. A characteristic ambition; he realized that art is long, but he would turn every moment to account. Concentration of mind is in the nature of inspiration. Tenacious of purpose and indefatigable in labor, as is the case with men of his temperament and capacity, he could accomplish more in a given time than most others do. His entire interest and strength always focused upon the thing to be done, it would have been singular if, possessing such gifts, his power of concentration being itself a phase of genius, his success should not have been marked. As in his collegiate, so in his post-collegiate studies, he was fortunate with his teachers, with whom his relations were those of friends. Among the faculty at the medical school in New Orleans he was under the tuition and listened to the lectures of Dr Beard, one of the most celebrated oculists in the United States, and Dr Choppin, who was afterward General Beauregard's medical director at the first battle of Manassas. This was in the winter of 1859. In the following summer he attended lectures at the Jefferson medical college, Philadelphia; but as without attending lectures there during the winter course also, he would not be eligible to be examined for his diploma, he repaired to Mobile, Alabama, for the winter, took the winter course of lectures there, and graduated from the medical college in that city. Philadelphia was a pleasant place, but Mobile was much more so in the party season of 1860—his sweetheart's home was in the latter city!

In the next spring began the war between the states. Dr Perrin had not voted on the question of the secession of Alabama. He saw that it would precipitate a fearful and desperate struggle, the outcome of which he could not but regard with apprehension for his people. It was his nature to be conservative and cautious, and he was a close observer. He had travelled with his eyes open in the north and Canada, and had studied more than medicine; he comprehended the great strength and resources of the north. His hope was that a breach could be obviated and the war avoided. He shrank from the horrors of the war. And when the struggle was over and people said it was for the best after all, he could not think of it as anything less than a most cruel and horrible thing. His friends and neighbors all rushed into the army. He was not less prompt and decided than they, though his mind was troubled with forebodings. Of that class of whom Alexander Stephens was an exponent, he felt that his first allegiance was due to his own state. He would act upon this principle, regardless of policy.

When his state seceded, he joined the Eleventh Alabama volunteers at once, as a private. Delay occurring in moving the regiment forward, he proceeded in advance of his command to the army of the Potomac, his regiment coming forward afterwards. Dr Choppin, his old teacher, medical director and surgeon on Beauregard's staff, learning that he was in the army there and serving in the ranks, had him detailed to assist him, and shortly afterward he received from Richmond his commission as assistant surgeon. Upon the transfer of Beauregard from the army of Virginia, with whom Choppin also was transferred, Perrin received sealed orders to report for duty to General Pendleton. When the general read Dr Perrin's orders, of the nature of which the doctor himself was not aware, instructing him to assume medical control of the brigade of artillery, he eyed the youthful physician as though he would say: "That is a large care for one so young in the profession"; but he did not say so. Dr Perrin, upon finding what his orders were, told General Pendleton the responsibility was too great for him; that, moreover, he could not afford to be promoted at the expense of others, through the kindness of influential friends, however much he might feel complimented by their estimate of his ability; but that he would remain if some more experienced surgeon were put in charge of the brigade, whom he might be allowed to assist. This the general arranged, and from that day was a warm friend of his assistant surgeon, who was a member of his staff as long as he remained in the army of northern Virginia.

After Dr Perrin had been about three years continuously in active service as surgeon in the confederate army, he obtained leave of absence and went home for a short time to look after the plantation, on which the only resident white persons were his mother and the other ladies of the family. His brother Robert was away in Bragg's army, and George with the army in Alabama. He had already recognized the inevitable; for some time he had foreseen what the end must be. The enemy were actually acquiring new war-strength every day, while the strength of the confederacy was becoming less and less, with scarcely any reserve of vitality. In anticipation of the catastrophe, he returned to Burton's hill to make such arrangements as he could at home to soften the impending blow, and to put the old plantation in the best condition practicable to save what was possible from the wreck. He did not sulk or give way to vain regrets at any time, and now, in the face of what, to him, was only the natural consequence of a struggle between unequal antagonists, he was still loyal to the cause practically lost, and he kept his own counsel lest he might uselessly disturb his comrades in arms.

At Mobile, whither, drawn by the loadstone of his existence, he had repaired during his furlough, he received orders to report at Vicksburg. As though a kind providence watched over him, he missed by a few minutes the train on which he was to have gone Always punctual, and knowing that, owing to the irregularity of transportation then, he had lost the opportunity to be helpful among the suffering soldiery, he was in great distress over the detention. During the day, however, the news came that the entire train with all on board had gone through a burned bridge into the Big Black river below and every soul drowned! Later, he reached the fated city of Vicksburg; after the surrender of which he was on duty at the hospital at Demopolis, Alabama; afterward, at his own request, he was assigned to duty in General Pillow's command, in order that he might be as near as possible to his brother George, who, though a captain in the service, was barely more than a child in years, and whose sad fate has been referred to. And so, making himself none the less generally useful in the art of healing in Alabama, because there was plenty of sickness and wounds in that part of the field toward the close of the war, than though in a more conspicuous quarter, he gave all his best energies to the confederate government to the end of the conflict. At the close he was chief surgeon, and in medical charge of a division of General Forrest's cavalry. Acquiescing in the result of the struggle, he wasted no time in repining. Believing in the right of the states to withdraw from the union, he had been in logical accord with those whose minds and hearts were in the lost cause. Until the issue had been determined by force of arms he had stood shoulder to shoulder with his people. But the war ended, he set himself to work at once to gather up the fragments of the Perrin property.

When he had graduated in medicine, the war having begun, there arose a question, with love on the one hand and duty on the other. Miss Herndon, exemplifying the spirit which characterized the high-bred and devoted women of the south, thought it his duty to go into the army; that, too, was his own conviction. Their marriage did not take place, therefore, until the 10th of May, 1864, when he was engaged in hospital duty. From that day until the close of hostilities Mrs Perrin often accompanied him in the field.

When the war was over he went home and engaged in farming, chiefly cotton-raising. The war had demonstrated that cotton was not king, but it was a precious commodity nevertheless—worth then fifty cents a pound. The problem was, how to produce it at a profit. There had been a social upheaval in the south. Labor was demoralized. At one stroke universal freedom had taken the place of slavery. This radical change in their status bore heavily on the negroes, to whom it came so suddenly, and the situation seemed in most instances as difficult for their former owners. Dr Perrin, who understood the negro character perfectly, called the Burton's hill freedmen together. "You are free," he said, "but there is no law that compels me to hire you and pay you wages. I will do this with you: if you will work well, I will give each one of you so many acres of land, and I will furnish you with clothing, and teams, and plows, and everything else that is necessary to carrying on farming. All I require is, that you make me whole, return me my mules and implements, and pay me so much in cotton." This proposition pleased them greatly; it made them feel independent, as it put their labor at their own disposal; and it in a measure relieved the proprietor of the plantation from the responsibility and care of them. The result was that the negroes who worked well made money. The second year after the war he was successfully conducting altogether five plantations, engaged in merchandising, and withal attending to such practice as he could not avoid.

He had made up his mind that the profession of medicine was not adapted to his temperament; the suffering and death of patients taxed his sympathies profoundly and made him very unhappy. Besides, there was not opportunity in the practice of medicine, even though his success should be the maximum, for him to do all for his family that he wished. He cherished an ambition in no sense narrow. He coveted an active life of business, the possibilities of which are practically limitless, depending only upon the industry and the talent of the laborer. But he soon began to perceive that cotton-planting and merchandising in Alabama would not continue sufficiently lucrative.

In some respects the results of the war were harder upon the southern people than the war itself. Reconstruction began; the former slave was made nominal master by the gift of elective franchise; strife and confusion prevailed. And, also, Green county was malarious. He would leave it for a better country. Where should he go? He had four cities in mind: Baltimore, New York, Chicago, and San Francisco. Dr Josiah Nott of Mobile, a leading surgeon in the south, and a well-known contributor to medical literature, invited him to join him in the practice at Baltimore. This was a flattering proposal, but it could not be entertained, for the reasons already explained. He visited Baltimore and New York city, however, to see in a general way what he might do to enlarge his means. He had saved about $40,000 from his fortune in Alabama, and with that amount emigrated.

The spirit of pioneer enterprise that had characterized his father was reproduced in him. In a newer country there would be more latitude and larger opportunities for one of his means. Returning south in the summer, he then came to San Francisco, via Panamá, arriving here in August 1868. The change from the hot, sultry air of Green county to the cool, exhilarating atmosphere of San Francisco delighted him. His own judgment as to removing to California had been greatly influenced by the advice and counsel of Colonel Harry I. Thornton, a distinguished member of the California bar, a man universally popular and of the highest type of character at every point, whose warm personal friendship Dr Perrin has deemed it his great good fortune to enjoy for so many years, and to whose rare legal talent and business ability he is so much indebted for his success in many transactions.

His first thought was to buy real estate in San Francisco before the overland road was finished; also on the line of its extension in the California valleys, knowing that, could he select the right places, his investments would be profitable. This was his original idea, formed, even at a distance, from a study of the geography of the country. His father had enlarged his fortune greatly in this way, that is, by the purchase of Alabama lands lying in the direction of improvement. As though bred in that line of thinking, he took direct hold upon the main conditions of the problem at once. And he did not enter this community at a disadvantage. He was known to Californians of distinction who had come earlier from his own and other counties of his native state, Alabama having contributed to California a conspicuous quota of her best citizens in almost every department of professional and commercial life. Besides, he brought extraordinary credentials, which he did not seek, but were proffered him by the banking house of Brown brothers, New York city; a general letter of introduction of such character as to place him on an agreeable and satisfactory footing at once with the best men of the Pacific coast in business and society. After taking a general view of the situation, he returned to Baltimore, where he was anxious to rejoin his wife. The Central and Union Pacific roads had not come together then, and he covered the interval of 750 miles by stage. With his wife and their little daughter, he went down to Alabama; there they met with a fearful loss; their beautiful child was taken from them by diphtheria. Going thence, after Christmas, to New York, Dr and Mrs Perrin took the steamer to California. It was a great sacrifice for her to leave those manifold ties which bind one to home, relatives, friends, and associations, to start life again in a distant and new country; but she did not hesitate now to go with him, any more than she had hesitated to bid him go forward alone when his country called upon him. Having now transferred his household gods to this section, he started in to carry out that plan of operations in which he has been conspicuous ever since. He was invited by Dr H. H. Toland, whose reputation as surgeon and physician was as wide as the Pacific coast, and whose practice was the largest in the west, to join him professionally. But Dr Perrin, for reasons already given, was not able to consider this proposal, though it was very complimentary.

As was true of his father, he lived largely in the future, not undervaluing or neglecting to utilize the present, but also considering it in its relations to and as an ever new point of departure. That enterprise suited him best which was capable of indefinite expansion, or which, being itself completed, formed the stepping-stone to other undertakings in a series of developments. In that branch of commerce which he had in view, he studied the conditions of value, as in medicine he had investigated disease, tracing effect to cause, in order to determine the principles or natural laws which underlie and control the phenomena as distinctly in the former as in the latter. The element of speculation is not always entirely excluded from either, but in cases involving an undetermined influence, the argument of probability, wisely applied, often leads to results to be relied upon, though not susceptible of demonstration. He was not speculative except in this sense; nor was he sanguine in the ordinary signification of the term. He was always enthusiastic and confident, however, for having analyzed the conditions of a venture, and having arrived at a satisfactory solution, in accordance with the principles which control in this branch of economics, his faith in the practical result was complete. His reasoning was comprehensive, sound, and clear; his generalizations correct. Nor was his judgment superior to his executive ability, though it is not suggested that he was infallible in either. As a rule, the planning of a great enterprise requires a talent for originality distinct from the faculity of execution—one intellect conceiving and another carrying into effect. In the case of Dr Perrin we have an example of the originality to devise, the judgment to control, and the will to perform, all harmoniously combined in one person, constituting in him the force of thought and action combined. Men of this character discern and embrace opportunities that other men do not perceive or are not capable of turning to account, thus promoting development and creating value. Their ability and enterprise is a tonic, agitating and stimulating the community, which would otherwise come to a stand-still or retrograde. Without the transfusion of their vitality into the affairs of the mass there could be no progress. Their regenerating and propelling force, embodied in material or intellectual form, are the historical monuments, the landmarks, of human advancement. These men enter into a nation's life; their experience is the sum of its history. They control it for the present, and dictate its future for years to come, intellectually and materially. They make their country's record and are embalmed in it—organizers, creators of states.

As to who accomplishes most for civilization, whether, on the one hand, the man of science or professional life, or on the other, the man of affairs or commerce, need not be discussed; but that the measure of intellectuality and hard work required for eminent attainments is much the same in each I have not the remotest doubt. Dr Perrin, after years of creditable experience in a learned profession, turned his entire attention to business.

He enters into his new field fresh and elastic, with a well-defined object in view. Fertile in resources and fixed in purpose, he is scarcely conscious of obstacles which deter less vigorous men. Faith in his projects and in himself gives him already strong extraordinary strength. Of quick perception, he acted directly, wasting the least time or energy, never failing on account of delay. That he was never misled or erred in judgment cannot be said of him, nor of any other mortal. Influenced by his own study of the route of the Central Pacific railroad to its terminus on San Francisco bay, as well as by the representations of persons in authority who seemed worthy of trust, he invested in land upon which the town of

Newark, Alameda county, now stands. He learned on the threshold of his new avocation that men engaged in trade are not always so tenacious of truth as those with whom he had previously associated. When the road was finished he found that his land was off the line. With the completion of the road, real estate, which, in anticipation of this development, had been held at high figures, depreciated greatly. His investment was not a happy one, but it could be made valuable. A value could be manufactured for it, so to speak. The loss must be retrieved. He tried the land as a wheat farm, and then as a dairy, unsuccessfully. Then with the coöperation of his neighbors he built a wharf and put on a small passenger and freight steamer to San Francisco. Shortly afterward, with the assistance of some friends, he began the construction of a railroad from Dumbarton point through Newark to San José. While construction was going on, it was finally sold to the Bonanza firm, and by them completed as the South Pacific railroad, which they in turn sold to the Southern Pacific railroad company. Dr Perrin sold the land for which he had paid $40 for $80 per acre, and thus made a tolerable success of what threatened to be a total failure. This was among his first ventures.

A surveyor told him of a certain desirable tract of land in Shasta county that could be entered as government land, and for a consideration started out to conduct him and an associate to see the property. The party reached Chico late in the afternoon. Most men would have remained there overnight; but not so Dr Perrin, who, ordering a private conveyance, they drove all night, reaching Red Bluff next morning. The air was cold and frosty, but stopping only long enough for breakfast, at his urgency, saddled horses were procured and they went right on. Pressing forward vigorously, the doctor's horse gave out before they had gone far, but they proceeded despite this inconvenience. His companion, nearly overcome with fatigue, became dissatisfied; he doubted if there was any land in the country that would pay for such trouble, and he would have gladly given it up. But the surveyor stoutly maintained that the land was good, and he consented to go on. The party at last came upon the tract, which proved to be fully as desirable as represented. Now back to San Francisco went the party; thence hastened Robert Perrin to the United States land-office at Eureka, Humboldt county, overland, sleeping one night in the snow, with the money for the purchase on his person. He had scarcely perfected an entry for the land when the agent of another investor, who had just arrived at Eureka by steamer, came into the office to enter the same land. To use a homely but expressive saying, the doctor never allowed grass to grow under his feet; in the pursuit of an object, no one could be more determined or expeditious. This is only one of many instances in which he won by running the race without stop or diversion. In this spirit he began his remarkable career in the acquisition, improvement, and disposal of realty in the far west. It did not require the gift of prophecy to forecast his future among the great personal factors whose energy and intelligence, applied to the development of marvellous natural resources, have accomplished results of very great value despite the most serious artificial obstacles.

As intimated, he came to San Francisco in pursuance of the general idea that he would be a forerunner of railroads as they traversed the great valleys of California; he would buy land along the route of construction, and as it appreciated, sell a portion of it and retain the rest for further appreciation. In August 1868 he made his first investment in the San Joaquin valley, Fresno county. This was rather incidental and initiatory, the inducement being the cheapness of the land and the advice of George Hearst, a distant relative. His uncle, Philip Burt, an excellent judge of land, went and reported it good, and the next summer Dr Perrin and he went together by the way of Stockton, and thence in private conveyance, Mr Burt and others having made a trip previously as far as Sycamore, a point on the San Joaquin river a few miles below Herndon, where the railroad now crosses the river, in Fresno county, in a flat-bottomed steamer. At Jones' ferry they met Charley Converse, a man well known, and they asked him what he thought of the Fresno country. His answer, which was very decided, though not elegant, was anything but flattering; in other words, his idea was that the land was worthless, and anybody who would pay money for it was a fool. This was the prevailing opinion. The stock-men who had gone upon the Fresno plains did not believe the soil of any value except for grazing; they were sincere in this, and they regarded themselves as sovereigns of the territory over which they had assumed control, and over which their herds had roamed without interference. When the farmers began to come in and enter land (which the stock-men, as a rule, had not done, so little did they think of the land, but for stock), and to encroach upon the domain occupied by them, some of the stock-men resorted to persecutions to keep settlers out. Such was the feeling of hostility when Dr Perrin and Philip Burt were on their way from inspecting the former's purchase, that a certain stock-raiser, not otherwise a prejudiced or ungenerous man, and who refers to the incident now rather impersonally as a historic reminiscence, refused them food and a night's lodging in his house; and it was only by a compromise later that they were allowed to stow themselves away for a night's rest in his barn. Such were the conditions out of which were to arise new questions of land law and public policy most seriously affecting the wealth and prosperity of the state.

Where there was water on the plains of the San Joaquin there was grass. In the eyes of stock-raisers the land was worthless for any other product. They took and held possession of it for grazing purposes, and they were so long alone in use and control that they felt and acted as though they owned it. Naturally they did not want any settlers to come among them as neighbors whose interests were in conflict with their own. When, therefore, farmers embraced the opportunity to acquire from the government and settle on Fresno lands, the cattle-men felt that their domain had been encroached upon, and when these newcomers began to divert water from its natural channel, there was immediate and serious cause for dissatisfaction. Those who had come in first were in riparian possession of this water, all of which they needed for pasturage. Any diversion of water diminished this pasturage, and was a trespass upon their rights. Riparian proprietorship as understood in the common law of England obtained also in the state of California. But, worse still, these "grangers," these "sand-lappers," as they were termed, did worse than acquire title to the land in the regular, legitimate way —worse than even divert water. By irrigation they made the alluvial soil soft and spongy; in some places cattle were mired, and died in consequence. The cattle men were disposed to look upon this as a trespass, and the damages done excited their hostility. They had a contempt for these farmers, who, it really seemed to them, were insane. What could they expect from the miserable thirsty soil? Jack-rabbits could scarcely subsist on this desert. They were demoralizing the stock business with the wild idea of agricultural virtue of barren land. Nothing could come of it but annoyance and loss to the pioneers, who owned the waters and the meadows, the overflowed lands, which alone were worth anything to them; nor could anything but failure and humiliation result to the enthusiasts who were engaged in farming experiments in such a region. This was the case as made out by the stock-men, sincere in their assumed prior rights and honestly blind to the possibilities of the arid waste.

There was no fence law then, or scarcely any other law, in force. The pioneer farmer was a prey to the stock-raiser, who did not control, in some instances did not endeavor to control, his herds, which devoured the growing grain, and tramped the stubble into the earth. A colony of Alabama settlers came together on one occasion to protect themselves against a herd of 100-000 cattle, but the hungry beasts overwhelmed them and made short work of their crops. Time must elapse before the capabilities of the soil could be demonstrated, by process of evolution. A few sturdy men put themselves early to the work of development, no one, however, having anything like a just conception of the truth that was to be revealed. And even now, in the midst of astonishing results obtained by irrigating and tilling the land of Fresno county, its still latent possibilities are comprehended by few. When I say that the world has never seen anything comparable with it, I speak in accordance with reliable data and from actual observation.

As though a locality were reserved for a destiny; as though in the organic life of the human family certain results were required at given times in the general economy to be produced by mankind from conditions made ready; as though the programme of human activity had been prearranged, and nature and man were to combine and give new form to old things to such an extent as to be almost an exception to the saying that there is nothing new under the sun. Peculiar physical conditions render practicable what would otherwise be impossible at the hand of man; such a combination of the elements may exist as to render him capable of superlative achievements, so that in the light of later experience what was formerly regarded as the maximum becomes the minimum. But a long-established criterion sometimes possesses a vitality hardly less than that of truth. State facts to the skeptic, he must inspect the source from which they are derived. Satisfy him that the source is of the nature to warrant the results obtained. Then will he say: "Yes, your theory is good, but results are the only proof; let us see the results." You then show him what has been done, explain how it has been done, and demonstrate that the same thing has often been done, cannot fail to be done again indefinitely; that, after all, you are only calling attention to a natural law. The truth conquers him, but prejudice still fosters incredulity in the general mind.

The south of Europe has been for time out of memory the principal grape and wine producing country of the world; hence that its reputation at some points should exaggerate its character or outlive its merits, is, perhaps, only natural. And owing to the slowness with which a knowledge of recent discoveries is diffused, it is not to be wondered at that all other regions are still compelled to suffer injustice by comparison with it. But grapes and wine are the product of two forces, nature and art. The former is the foundation, the latter the superstructure. Favorable physical conditions are needed to begin with; culture is supplementary. Nature is still first in order; even when its primitive resources having been exhausted, art is employed to restore them and reëstablish a basis for cultivation. But how uncertain, expensive, and unsatisfactory it must ever be to utilize manufactured in the place of original soil, except on a very small scale—for instance, in hot-house or experimental horticulture.

Fancy, on the other hand, a primeval soil complying with all the requirements, superbundant in all the elements most admirably combined for the production of the grape—a soil continuously self-fertilized from an inexhaustible source—coupled with rich and perpetually renewed soil, a gift ready to hand from nature's laboratory; contemplate climatic conditions as nearly suitable in detail as though furnished by the Creator with the design that the growth and the manufacture of the grape might be perfected—and you get some idea of a prodigy that exists. I refer to the once much-despised arid region of San Joaquin valley, especially that portion of it lying within Fresno county.

"Genius," says Rosseau, "is observation." There are those who go through the world with their eyes shut; there are others, comparatively few, whom nature seems to talk to and communicate with; to whom the divinity does not appear to move in so mysterious a way his wonders to perform. The successful student, in whatever department, science, philosophy, literature, or commerce, must be an observer, or else he will want that comprehension without which all he may know will be stale, flat, and unprofitable. Dr Perrin was an observer. After his first summer in the city was gone and it had not rained, it seemed singular to him, and he pondered on the consequences. While in this state of mind he met Thomas Selby, mayor of the city, a successful hardware merchant and an old resident of San Francisco. Said the doctor to him, "When do you think it will rain?" The response was, "I do not know; the weather is the last thing I ever think of." This incident, which was characteristic of the querist, serves also to show the trend of his thinking at the time.

In 1870 and 1871 he began to get the idea of irrigating the Fresno plains clearly into his mind. Irrigation he saw plainly would be the redemption of that sad-looking section of country. On the other side of the river from Fresno town, the Alabama settlement had been made. The settlers, most of whom were old friends of his, had planted wheat, but their crop had failed for the lack of rain. While at dinner with them, one day, the future of the locality was discussed. Said he, "I am afraid you cannot succeed without irrigation." They were a little bit worried at this and feared it would injure their prospects to talk that way. "We had better look at the facts of the case," said he. "My idea is to get at the truth, for however disagreeable it may be, nothing pays better than to ascertain the truth." He advised them, if they depended on rain, to move slowly and cautiously, and avoid spending money on one crop to recover which money they might have to depend on the proceeds of another crop. If they irrigated they could count upon a crop with certainty every year. "Now," said he to a settler, "it is too serious a risk for you who have a family to farm here depending upon rain." But the first year he got a crop, and he was exhilarated. The second year was bad; the third year a total failure. He had pinned his faith to a great rain cloud which would appear now and then beyond the San Joaquin river, but it seldom broke above his thirsty acres, but passed beyond, its vapors being condensed and precipitated against the mountains. "Who," exclaimed he, "would believe that a cloud could not have crossed a river!" He had to learn by experience that he was living in a peculiar district, comparatively rainless.

As for himself, Dr Perrin had made one practical test. He experimented with sheep-breeding on the land he had bought, and discovered that unless he could produce hay to supply his stock during the long and verdureless season by irrigation, it was cheaper to buy it. But nature abounded in indications of the comparative rainlessness of the district. First, the land had no timber on it; this was conclusive evidence. There was another sign of dearth which he did not recognize at first, namely, the jack-rabbit, whose home is the parched, waterless plain. Later, also, his observations led him to consider the horned toad, which thirsts not and shuns moisture.

M. J. Church was the pioneer in irrigation in Fresno county. In 1868 he diverted water and planted wheat on the ground irrigated. Dr Perrin called on him near Centerville to inspect his work, and this acquaintance resulted in their becoming interested in a common line of development. The life of the latter is elsewhere studied, showing him to be a highly useful, self-made man, possessing unusual moral courage, determination, and pluck, qualities essential in the pioneer warfare into which he was forced. The special crowning work of Dr Perrin for which he was fitted by breeding and education, his knowledge of men and diplomatic ability, was to reclaim the wonderful Fresno region, in the court-house to break the force of riparian precedent, and to battle against a sea of troubles in litigation; also to take the chief part in subsequently developing and bringing Fresno's virtues to the attention of the financial world.

During this season of thinking on the subject of irrigation, F. E. De Wolff, a man of large wealth, who had been a sugar-planter in Cuba, and who had travelled much in countries in which irrigation is practised, came to California, and in quest of irrigable land went into the Fresno district with Dr Perrin. He found recreation in the study of irrigation, to which he had given much attention in Egypt, Spain, and Italy. He was pleased with the topography of the San Joaquin valley, which is so easily irrigated, lying, as it does, at a gentle slope under cañons filled with slow-melting snow. Dr Perrin, who had been more than once taken for a Yankee because of his many and persistent questions in the line of his enterprise, learned all he could from Mr De Wolff of what he knew of the theory and practice of irrigation. With a mind well schooled in the underlying principles of science, and ardent in research, he knew hardly less than his guest after he had done questioning and listening to him.

Nor, being always on the alert for information, had he neglected a homely lesson, brought to within a stone's-throw of his house, from the Orient, where, in certain forms, irrigation has been practised from time immemorial. Near his residence in the mission quarter of San Francisco, where he then resided, he observed some Chinamen cultivating a piece of low land, a sort of basin, not more than three or four acres at most, planted in vegetables of various kinds. By means of a pump and wind-mill they raised water to the top of a little hill about thirty or forty feet above the ground, storing it there in a large tank, or reservoir, from which it was conducted down and distributed over the soil as needed. Eight Chinamen worked that patch of land, from which they seemed to be harvesting all the year round. They had a horse and wagon to cart their products to market, and they paid $50 a month rent. Still they cleared, above all expenses, about $2,000 per annum! This result was conclusive as to the value of irrigation. It demonstrated to him the actual power of an ample supply of water under intelligent control.

Thus from what he learned from observation and study he was convinced that there was in irrigation a source of wealth to individuals and the state, and acting upon his judgment, he endeavored to get good land that could be irrigated. During the years thereafter he bought and sold lands, but such operations in real estate were not altogether the occupation to which his energies would be confined. One of his ambitions was to acquire a vast acreage on which to carry out a grand horticultural scheme, the proceeds of which he would hope to utilize for a benevolent purpose, as he believes that no man who is blessed with this world's goods should live for himself alone.

A relative, a man of much intelligence, but of more conservative temper, used to say to him: "If this land is worth anything at all, you have enough; if it is not worth anything, you have too much." But the doctor, never doubting that he was right, went ahead accumulating acres. He would accomplish the maximum that he was capable of in the way of utilizing the resources of the country.

Before going abroad, that is, in the year 1874, he had become so thoroughly impressed with the feasibility and profit of irrigation that, having obtained the franchise for a certain period to dig a ditch or canal from the San Joaquin river to irrigate a large tract of land in Fresno county belonging to the bank of California, he went to work on the construction, the agreement being that the bank should have a dollar and a half per acre on the land when sold, and also one half of whatever it sold for above that figure, the other half to go to him. He put himself in the hands of the engineers, who, he found out, could make as many mistakes as physicians do. More and more funds were advanced by him and his associates upon each new estimate of prosecuting the work. At last the estimate for a fresh start was so great that he was glad to sell a majority of the stock to parties who came to him desirous of purchasing it.

Acting directly upon his judgment, he secured water rights in several ditches, wherever he could, in view of reclaiming the land. In the Gould ditch, which takes the water out of Kings river at Centerville, he obtained a one-third interest early in the 70's. But the water thus diverted seeped through the parched and porous soil and lost itself below the surface within a short distance. This was very discouraging. Everything was at hand to make wealth certain, but the effort to bring it within reach was futile. Soon afterward he bought water rights in the Church ditch, but, on account of the same obstacle, obtained no water. But he never lost confidence in his ability to conduct the water to the plains, nor faith in the result of irrigating them.

In 1873, near Fresno city, the cereals having been produced in abundance, cotton and tobacco were grown successfully, the culture of which was abandoned for reasons independent of production. Alfalfa was not many years in taking the place of a wheat crop. In 1873 the soil was tested for grapes, which with irrigation had produced results that can hardly be credited until realized by actual vision. In 1876 the settlements by the colony system began, and to show how the crops had become diversified even then, some avenues were planted in fig, others in cherry, others in walnut trees.

He saw that Church was acting in good faith, and that to convey water on his right over the dry ground beyond the line of complete saturation—this line slowly advancing always—was an impossibiltiy. One day Church said to him: "You had better buy me out, and let that other canal alone. This one can be perfected and made very valuable." This is the point at which (in 1886) a new life was to come into, preserve, enlarge, and better the Fresno canal and irrigation company. A stronger enemy than the physical opposition which had to be encountered was litigation —ceaseless, multiform, and insidious.

The stock-raisers, who were opposed to the settlement of the country, were active in their endeavors to prevent it. They commanded the situation. Individually and collectively they had a great deal of money, and they could afford to spend it to discourage settlement. The weight of custom and law was on their side. The atmosphere of the court-house was not friendly to irrigators. There was but little irrigation then in the state to be cared for. It was too small in its infancy to compel protection. It was an undeveloped interest, and the weight of influence was in favor of the riparians. The whole trend of the law, the statutes, the decisions of the court, were all in support of the old common law. A compromise would be better for irrigationists than a suit brought to issue. He feared that a decision at that time might prove a misfortune. Therefore when the celebrated suit between Miller and Lux and Haggin and Tevis was started, he did all in his power to obviate a judicial determination. He succeeded in bringing some of the litigants together in his office, where, after much persuasion, he was successful in inducing them to entertain ideas of a compromise, but others interested in the litigation not consenting to the compromise, the suit was tried. He felt that if the water involved in that issue could be used for irrigation, it would help develop the essential idea of agricultural life from Bakersfield in the south to Red Bluff in the north. And Dr Perrin was wont to say that he thought Haggin and Tevis were entitled to a monument more lasting than brass for what they had done in the cause of irrigation.

The idea of applying in its full force the riparian doctrine of England, with its moist climate, and its need of water in streams for manufacturing uses only, to California, where water means money and life, and its absence sterility and desolation, seemed to him unnatural. The English government itself has spent vast sums of money for irrigation in India, resulting in the most comprehensive system in the world—a system upon which millions of human beings depend for life and happiness. Is there no adaptability in us? Do not the things done by irrigation prove its beneficence? Not things done abroad, that we read of, but things accomplished at home, on our own soil. Has not the Fresno development, which could not have been except for irrigation, shown the capabilities of a desert, every acre of which yields vegetation and fruits? And the same, in degree, could be made manifest on other large tracts in the state. The time is coming when California will teem with people from all parts of the world. Climate, resources, conditions, all favor this. How can so vast a multitude be provided for? There is a way to make California capable of supporting a population as dense, possibly, as in China or India; that is, by irrigation. But, says the man whose horizon is in the present, and who believes, falsely, that a human life begins and ends with the years in which it is seen in the flesh, "this is for the generations to come." So be it; but if our lives are of value, we should labor for the best; the wise man lives for something substantial to enjoy here and leave for the good of others coming after him.

If the people of California should understand this matter of irrigation, it would be as though scales had dropped from their eyes. With one voice, while recognizing vested rights, they would cry out for a radical revision of the laws of the state, so far as water rights are concerned, and not rest until the most liberal statutes were enacted for the encouragement and promotion of irrigation. The great dry valleys, developed by irrigation, would support in comfort and happiness from ten to fifteen millions of people. What a city would such a background make of San Francisco?

Dr Perrin, fond of studying physical phenomena, of analyzing, generalizing, and classifying, was brought up on a farm, and his intuition and experience went forward together. In Alabama, there is a grape that grows wild, the muscadine, the name being derived from muscatus, or muscat, the grape which is so excellent in flavor and so prolific, especially as a raisin grape, in California. This muscat, by the way, comes from Alexandria, and is produced in the region of overflow along the mouths of the Nile. The muscadine grows in swamps along the rivers, and climbs upon the trees, growing to great size. The two chief conditions are water and heat. In the San Joaquin valley, also, he noticed the native grapevine growing in those places only in which the ground was thoroughly saturated the year round, where at certain times of the year the vines were half submerged. You approach the Stanislaus river, for instance; the descent towards the stream brings you on to a succession of flats, or terraces, each lower than the preceding, and each more humid. You observe aqueous flora more and more pronounced. You seek in vain for the native grape, however, until you come upon the lowest flat, which in seasons of high water is a part of the river bed. There, and in what is the margin of the river in dry weather, you find this grapevine thrifty, luxuriant, and graceful. To him these phenomena speak plainly; there could be no mistaking this expression of nature's law. Nor did he overlook the pioneer attempt at viticulture, a mere experiment primarily, which was made along the bank of the Fresno irrigation company's canal, on the Eisen vineyard, about five miles east of the town of Fresno. The two governing conditions, water and heat, were present, and the soil was that reserved of earth for the grape. The result was simply a revelation. In magnitude it surpassed anything ever recorded before in the world's history. Yet in the face of demonstration by weight and measure there were those who were still skeptical, hardly able to realize what they saw; while those who did not see and handle the grapes for themselves, and had to depend on hearsay, could not grasp the idea that California could possibly excel the historical grape regions of Europe. Such is the hold that prejudice or precedent has upon the human mind. It is only here and there that one is found who, unhampered by prepossessions or bias, is capable of judging of things as they are, on their intrinsic merits; only such as he is clear of vision. He naturally leads; the crowd follows.

Dr Perrin had been growing stronger in his faith in Fresno as a grape territory all the while, without a knowledge of the grape industry of the old world to compare ours with, except such a knowledge as the student of liberal culture gets from books and conversation with those who are familiar with the subject. This knowledge helped forward the views he had formed upon observation; but what is it to read or to be told of nature as compared with looking into her so-called mysteries with your own eyes? When the doctor went to Europe the second time, he had had the Fresno grape problem already practically solved for years. He had learned that in Spain and Italy, under inferior governments, irrigated lands were worth more than the very best farming lands in England and Scotland, with all their wealth and admirable system of government. The latter sold for from $100 to $300 per acre; the former for from $500 to $2,000 per acre. But he sought and knew he would find cumulative proof in order to make the demonstration so plain that it could not be misunderstood or fail to convince the doubtful or stubborn. On his way to Bordeaux to gentlemen in which place he bore proper letters, he saw near the junction of the Garonne and Dordogne rivers the low alluvial lands, and noting the size and luxuriance of the vines, he remarked to his companion, a well-known Californian: "That looks very like Fresno; the water is not ten feet from the surface." They interrogated a Frenchman, who told them that the water there was 100 feet from the surface. Investigation proved that instead of 100 or 10 it was but 5 feet. At Bordeaux this information was positively confirmed by a prominent English gentleman, who gave them authentic data. Thereupon the last vestige of apprehension as to the history of the matter or misgiving as to his ability to establish the truth disappeared. It is well to have faith sufficient for your own belief, but if you would remove mountains with it, you must be able to transplant it in the minds of others. A self-satisfying and a world-subduing faith are far apart. The confirmation of his belief came to Dr Perrin, as intimated, on this ancient ideal viticultural land. "The land you can irrigate is the valuable land." It is not necessarily the best land for fine wines, but your crops on it are sure. The hill lands are ravaged by the phylloxera; the low lands, where they can be submerged by irrigation, never; and if those hill lands do produce exclusively certain delicate and costly varieties of wines, at this time not known to be possible elsewhere, there is still a vast field for grape culture on level ground for the very many different wines, and for whatever else the enormous crops of Fresno grapes may be used. The climax of his faith reached, enthusiasm carried the doctor that night into the realm of speculation, or rather calculation, upon the possibilities of the till then and later still unappreciated capabilities of the Fresno region. He compared the yield of the French acreage, where he lay in bed, with that of Fresno county, and the former seemed absurdly small in comparison. He did not close his eyes for hours beyond that point of night when graveyards yawn and spirits take to air. A fever possessed him to return to the el dorado of horticulture which filled his mind with exhilarating thoughts, whether he were asleep or awake. The longer his mind dwelt upon the subject, the more decided was his impression that the lands in the Fresno district were of very great value. It was better than the California placers, and it was cheap. He did not stop buying until he had got the control of about 150,000 acres. And as though something additional and picturesque were in order to vary and intensify his reasoning for the necessity and importance of irrigation as supplying the first and last essential to grape-growing, he happened upon another local argument. While at his cattle ranch in Arizona one night, a man on the place asked him to try a bottle of home-made wine. It was delicious, and he wanted to buy some to carry away with him on the road. There was none for sale, but he was presented with another bottle. With his desire to know all about the vine and its products, he asked where these grapes came from. "Near the house," he was told. "Will you show me your vines?" asked the doctor. "Certainly," answered he; and they walked out a little way and he continued, "Here it is." The vineyard was *one vine*, the roots of which were at the edge of water. Its top was spread out in profusion over the surface of rocks above the stream. From this mammoth vine he was told one thousand pounds of grapes had been gathered. Here, then, was again presented the ideal state, the natural one, for grape-growing—abundant water and sufficient heat!

At this point a diversion may be made, in order to consider certain remarkable features of Dr Perrin's land operations, apart from his Fresno interests. When he bought, at Senator Hearst's suggestion, a tract of land in Fresno, he did not know how dry it was, and it took him some time to learn how to overcome and to utilize this dryness. Therefore he had to operate elsewhere in the mean time for the lack of funds. There were no official and authentic reports then on the meteorology of the country, and he had to depend upon the knowledge he could get from people supposed to be *en pays de connaissance*, by questioning them. He had to find out, really, by experience, therefore, that in Fresno, irrigation not considered, the prospects of profit out of wheat-growing were not good, the normal rainfall being, say, about eight inches. With his small means time was precious. He compared northern California with the south as regards moisture, and saw a chance in the former section to deal in land eligible for farming and having the additional speculative value of being in the line of direction of proposed or probable railroad construction. He made arrangements to buy the Redding tract in Shasta county, of about 23,000 acres, the rainfall there being abundant, ordinarily, for wheat, say, thirty inches per annum. The towns of Redding and Anderson are situated on this land. He and his associates, J. B. Haggin among them, profited by the operation, and had also something to do as promoters and founders of these places, the sites of which they planned and disposed of. He purchased ten thousand acres on Cottonwood creek between Red Bluff and Shasta, in the vicinity of which the railroad passed at the entrance of the valley; also 18,000 acres in Siskiyou county, near Yreka. This he disposed of at an advance before the road passed near it. Then he bought a large tract near Novato, Marin county, thinking that a railroad would be built from Petaluma down to the water at San Rafael. He had had the property but a few days when he was offered a bonus of $10,000 for his purchase. When he did dispose of it, the railroad was running through it and he realized a large advance. In short, he thus bought and disposed of lands in large tracts, pending his engrossment in the Fresno idea, in Shasta, Tehama, Mendocino, Sonoma, Marin, Napa, Alameda, Santa Clara, San Luis Obispo, Santa Barbara, and Los Angeles counties. His experience at Newark, in Alameda county, has been given. Lands of all descriptions susceptible to appreciation by railroad development he bought and sold; land in the valleys, on the foothills, in reclaimable marshes, anywhere within the influence of appreciation by railroad-building. He looked upon land as raw material, and, as such, comparatively valueless in our civilization; but, like other raw material—as, for instance, silk—capable of being greatly enhanced in value by labor bestowed upon it, one of the most generally potent agents in the development of land values being railroads. In the sphere of his operations, particularly in the San Joaquin valley, he found them second only to one other, to wit, irrigation; for while it is promoted by railroad facilities, it has the power to create railroads. The doctor's real estate operations are of interest as a feature of the industrial development of California, and serve also to show his activity, shrewdness, and determination. He covered a vast area, buying and selling in California, in a few years, hundreds of thousands of acres, under various circumstances, never failing in a single instance to profit by investing in accordance with his scheme.

The magnitude of the work he did is striking, but not more so than his individuality in his work; for his ingenuity supplied him with opportunities and furnished him with resources. Many of his enterprises involved large capital. He brought only $40,000 into the country, a sum so small as to be, of itself, quite inadequate. His family, reared in luxury, had never known what it was to have a reasonable wish that could not be gratified, nor did he ever entertain a thought that this should be otherwise. A large expense was unavoidable, therefore, that his household should be maintained in conformity with the comfort and elegance to which they had always been accustomed. Practically his talents were the only capital he had for investment. His personal force and character stood him in the stead of money. Endowed with a rare faculty to discover opportunities, and with the ability, not less marked, to exhaust them, he was never embarrassed for the want of funds to operate with. Capitalists, having confidence in his judgment and integrity, were generally ready to join him in any enterprise, the merits of which no one could present with greater force and ingenuity than he; their contribution being money and credit, his, intelligence and labor. For instance, in the purchase of the Redding ranch, the property was incumbered for more than it could be sold for. The creditors, realizing this, upon being seen one by one, were pleased to dispose of their claims against the tract for less than their face value. Dr Perrin, having perceived his way clear thus far to get good land cheap, which there would soon be an opportunity to sell at a profit, went to John Parrott, capitalist, for a loan of the money to make the purchase. While treating with him, Haggin and Tevis learned of the negotiation and proposed to furnish the money. In conjunction with him, therefore, Dr Perrin bought and sold the ranch. Enjoying the confidence of moneyed men, he commanded their support in money-making ventures. Experience proves that there is nothing by which men are so apt to be moved as an assurance of faith in the person presenting an enterprise. If you say to me, "I know this," I can tell just about how sure you are. If I perceive that that there is no doubt in your mind, I begin to sympathize with you in your belief. If then you satisfy my judgment, and I am convinced of your honesty in the premises, I am yours to command, especially when it is primarily a question of my own interest. But to command the men of finance as the doctor did requires such a blending of the elements of power as makes chiefs among men—discernment, moral character, and enthusiasm.

After these investments in California he bought the Babacomori grant, in Southern Arizona, containing 130,000 acres, for cattle-raising, much of it good farming land. He had scarcely secured it when the railroad from Benson to Guaymas was built through it, three depots, Huachuca, Elgin, and Fairview, being within the limits of the grant. After buying this grant in southern Arizona he purchased 100,000 acres in the northern part of the territory, known as the Bacca grant, for grazing. It was similar to the Babacomori grant, comprising some agricultural land and some timber. To these tracts he added 265,000 acres in northern Arizona; so that his Arizona property, with that of his associates, footed up 495,000 acres, on which there are, at present, 30,000 cattle and 16,000 sheep.

In addition to the 495,000 acres in Arizona, he secured a total of 150,000 acres in Fresno and Merced counties, California, aggregating the enormous area of 645,000 acres; and if to these acres be added those which he has had and disposed of, his transactions foot up over 1,000,000 acres since 1870. Even in this purchase and sale of land his activity has given a value to land, by bringing it under the improving influence of capital, thus promoting its vitality and usefulness.

He opened up, or took large part in opening up, places for and encouraging home-seekers, laborers. traders, and those in quest of more room, to go out and take up the struggle under circumstances which they preferred, thus extending and facilitating the growth of the country as an agent in its civilization. He was spurred on by his own purposes, otherwise he could not have done so much; perhaps would have done nothing worthy of note. But his schemes were always the kind to benefit many others.

But to return to Fresno and irrigation, looking to the origin of Dr Perrin's interest in the canal and irrigating company. On a visit to Florida he met a Scotchman, Captain George C. Cheape, who as a capitalist has identified himself with developments in California and elsewhere very largely with him. Their meeting was incidental, but ripened into an acquaintance mutually agreeable, as they travelled together from Jacksonville to New Orleans. Captain Cheape, a prudent, careful man of large wealth, already had interests in the United States, and wished to increase them. This knowledge did not come to Dr Perrin until later, however. Captain Cheape became his guest, and went with him to his rancho in northern Arizona, in which he offered to take an interest. They then proceeded to San Francisco. Here he was invited to the doctor's house, the latter going about his business as usual. Not knowing his guest except as a gentleman of high breeding and great cleverness, the latter became thoroughly acquainted with his host. The generous and far-seeing Captain Cheape had found one whom he could trust in all respects implicitly to place his capital to their mutual advantage. Subsequently Dr Perrin visited him at his home near Edinburgh, where, after a more thorough acquaintance, he found him to be a prince among men, living in little less than a regal establishment, presided over by his wife, a very handsome and accomplished lady, surrounded by every comfort and luxury that wealth and good taste could suggest. It was with the assistance of this friend that the property of the Fresno Canal and Irrigation company was purchased, the origin and progress of which up to this point is noted elsewhere. The property has been at all times since the purchase under the control of Dr Perrin.

To digress again, in order not to dismiss too hurriedly his prodigious land transactions in Arizona before returning to Fresno, it must not be assumed that Dr Perrin stumbled upon select cattle ranchos. It was a matter of study to determine their value. First, consult the United States geological and meteorological reports and maps, and you will see why he coveted (and worked until he acquired) the Babacomori and Bacca grants, to wit, on account of their being in limestone formation, and in a region of ample rainfall. These features chiefly. But to ascertain their points of value and to become possessed of them were two different things; the former requiring information and judgment, the latter involving physical labor, endurance, persistency, boldness, and tact. There were many hardships and dangers to be met and suffered in travelling in a country dominated by Indians of the Apache kind.

His large horticultural project referred to as in contemplation is to secure for himself the planting of, say, 50,000 acres in raisin and wine grapes, peaches, pears, and prunes, by leasing this land in small tracts to laborers for such a length of time and on such conditions as to enable them to earn more than the skilled mechanic gets—a scheme highly beneficial to them, and which will leave the proprietor ultimately in possession of a cultivated vineyard and orchard. At the rate of from $100 and upwards, net, yield per acre, the annual income from it may be readily calculated. Argues he: "Why not plant this tract in this way, and cultivate and own it as one vineyard and orchard, as well as sell the land and have it divided up in the hands of hundreds of owners?" It will all be planted in vines and trees before long, in any event.

The colossal project is difficult, yet I apprehend not more so than generalship, for it is chiefly the handling of and providing for an army of men, soldiers of peace. Organization, executive ability, and large capital will do it.

At present, he is deterred from undertaking this enterprise, about which he has thought a great deal, by the additional demands it will make upon his time, which is already so fully occupied otherwise.

The growth of wine-grapes and the manufacture of wines and brandies has a future undeveloped in California. The problem of sweet wines in the Fresno district has been solved. The heat is too great, perhaps, for perfect fermentation naturally, but such equable temperature as is needed can be had artificially. The art of dry-wine manufacture we must learn, and shall learn rapidly; the eastern states now, and later the world will, want all the delicious raisins and all the perfected sweet wines Fresno can export.

I have said that Dr Perrin, having obtained from his observation of natural law the initial idea of irrigation, proceeded thereupon by further observation and study with energy and fixity of purpose. On every line of investigation he was radical, not less so as regards soil adapted to irrigation than as regards irrigation *per se.* The census reports, especially the maps accompanying them in their generalizations from precise data, have been to him a guide and inspiration, statistics speaking with a force second only to nature. Certain vegetable phenomena are dependent upon and inseparable from certain geological conditions. Of certain human phenomena the same is true. The argument is one of cause and effect confirmed by experience. We deduce a universal law from the identity of its manifestations in all instances observed. Uncertainty is excluded, if the same conclusion is reached by a proper course of reasoning, either analytically or synthetically; impossible, if by both methods. If the human body be studied chemically, and therefrom you find a certain soil formation entering into it to make it superior, and that wherever men are grown upon that soil they are superior, and *vice versa,* the cause and effect are made clear. If instead of man we substitute the grape, the conclusion is the same.

Dr Perrin confirmed himself by exhaustive research in the knowledge that the finest results are produced, whether in the form of the horse, cow, sheep, or man, in limestone formation, which is all-important for perfect bony structure. Wherever the map shows this formation, unless there are neutralizing conditions, there you may look with assurance for superior animal life, expressed in fineness of organization, beauty of physique, or whatever other attributes that constitute excellence. You may write substantially the history of a country from an intelligent study of its geology. This lesson is plain in geography and history from Normandy to Kentucky, two regions familiar to all in this connection and around the world. The limestone in the water that men drink gives them size and quality, and the potash that makes large trees makes large grapes and many in a bunch. The same aliment that makes the *sequoia gigantea*, the celebrated big trees of California, the potash in solution, is prominent among the ingredients of the soil of Fresno plains. As the streams bring this fertilizer down the mountain side and lay it about the roots of the trees to give them prodigious stature, so, also, is it deposited in the soil of the valley, a process which has gone on for ages, and which is simply extended with every diversion of water. The scientific agriculturist with an analysis of this soil before him can calculate its capabilities.

Mr Mockford, an eminent and wealthy scientist of London, who had made a special and accurate study of viticulture, who was thoroughly familiar with the theory of it, and was, besides, a practical viticulturist, owning and cultivating a vineyard in France, upon whom Dr Perrin called, could not, at first, credit the latter's statements. But the doctor had come to him so accredited as to be listened to respectfully and patiently. He submitted an analysis of the soil of

Fresno vineyard land, made by Professor Hilgard of the University of California, which showed it to be exceedingly rich in those ingredients that are most desirable in the composition of grape soil, to wit, calcium phosphate, potash, soda, magnesia, and peroxide of iron.

When this analysis was thoroughly understood, Mr Murdock at once saw that these mineral elements were sufficient to grow even Fresno crops of grapes for an almost indefinite period. In this connection he also gave Dr Perrin a very conservative and guarded, but comprehensive and suggestive, letter regarding the conditions essential to the perfect growth of the grape, of which the following is an epitome: a suitable soil, a warm temperature, a rainless district.

While on his second visit to Europe, which lasted about nine months, and after he had seen and studied much that tended to give him a comparatively clear vision of that which he had come to look into—the grape—and being desirous always that as many others as possible might have the benefit of the information he had obtained, he wrote the following letter, which was published October 24, 1887, in the London *Financial News*:

"Thinking that it might interest some of the readers of your valuable paper to know some of the good things in store for them, I write to give some facts learned by a recent trip to Bordeaux, the great wine centre of Southwestern France. Being from California, and having heard so much of the Medoc country and its celebrated wines—among which the Lafitte, the Margeaux, and the Yquem are to be numbered—in company with a California friend we reached Bordeaux on October 3d, so that we were there while the grapes were being gathered and pressed. On reaching Lébourne on the way to Bordeaux, in the valley of the Dordogne, I saw an appearance of soil and growth of vine something like that of Fresno county, California, one of the new wine districts. As we neared Bordeaux I saw the same gray ash land, as we term it in California, with a growth of vine and amount of grapes thereon much greater than I had seen elsewhere in France and Germany. I saw at once it was of granite formation; but my surprise was very great after reaching Bordeaux, and driving down through the Palus lands—as they term them; with us the alluvial—of the Garonne, crossing to Macon, going to the celebrated Margeaux vineyard, thence to the Lafitte and Mouton Rothschild, adjoining it, and afterwards to the Yquem, to find that not only the top soil and the second soil, but, remarkable to say, the two kinds of hard-pan—both the red concrete, and the bluish clay underneath the upper soils—were very like the same in Fresno, where such great results are being obtained in vine culture. As in Fresno, the bluish clay hard-pan seemed to underlie the gray ash soil, and the red concrete the reddish lands. This difference I noticed. In the Bordeaux district in places there was more of a white gravel, which I was told made the ground warmer, and thus added more sugar to the grapes. Of course the white gravel could add no nutriment, and in this way only could it help the vine. If this justly celebrated country has contributed so much to the wealth and pleasure of the world, our California country—free, as I will show, from the drawbacks which beset this —can surely promise much. I was told that the late frosts of the spring, the rains at a time when the plant was in flower, the summer and autumn rains, the dry-rot and the phylloxera, were the troubles they had to contend with. Now, in the southern part of California there is no late frost in the spring; there is practically no rain from the middle of May until the middle of September; there is no early frost in the fall; there is a long, warm summer, giving no need for the white gravel; there is no dry-rot; the country is irrigated by canals, which can submerge the vineyards, and destroy the phylloxera. I should have said before that this dread pest is in nearly every vineyard in the Bordeaux district, and I was informed that it has already destroyed more than a million of acres of vines in France. I was told, too, that irrigation, or submersion, so far, seems the only available remedy, and accordingly I saw vineyard after vineyard along the Garonne being irrigated by steam-pumps, bringing the water from the river upon the lands; and here it was that I saw the greatest vine growth of grapes. The portion of California referred to seems almost a hothouse without glass; and one cannot be somewhat prepared for the statements that are to follow, and which to one only acquainted with the wine districts of France and Germany must seem like gross exaggeration. In the Bordeaux district I think it is safe to say that the grapes will not average two tons to the acre. I am told the official statements show this. In the favored parts of California from six to ten tons are raised; and the writer has been assured by residents, whom he believed to be trustworthy, that more than twice the latter amount has been grown upon an acre of land in one season. One could but think, in making a comparison, that as the big trees in the Sierra Nevada, in California—which lie above these favored vineyard lands, whose diameter in some instances is forty feet, and whose height is nearly three hundred feet—dwarf the little trees of France and Germany, so do their vines and products dwarf the vines and products of the latter. It is also a most interesting fact that the same red granite soil, in which the roots of the big trees are imbedded, is the same soil as in the valley immediately where the vine and fruit trees thrive so luxuriantly. These soils, upon analysis, are found exceedingly rich in potash, which accounts for the wonderful plant growth, all other conditions being so favorable. In the Bordeaux district—and I speak of it, as I there saw the largest and most prolific vines in France or Germany—I think it safe to say the vines did not average two pounds of grapes, while in the district of California referred to from ten pounds to ninety pounds are often upon one vine in a season. In Bordeaux the bunch of grapes seemed to be, as a rule, from three inches to five inches long, while in the California district the bunch at times is eighteen inches long. In some cases a single bunch of grapes weighs as much as ten or twelve pounds, though this is rare. I should add that in California fewer vines are planted to the acre. This much, however, seemed to be an assured fact: in the Bordeaux district from 100 to 400 gallons of wine are made to the acre, while in California from 1,000 to 2,000 gallons to the acre may be made, besides quite a quantity of brandy.

"It was also very interesting, and particularly so to Californians, to learn that lands set in vines ranged in price from $200 to $6,000 per acre, and this, too, with the phylloxera in the vineyard. In conclusion, when you read hereafter of the destruction by the phylloxera and the thought occurs that you may get but little more pure and wholesome wine, then think of sunny California; for I am assured when progressive people plant the same vines, mingle the product, as they do in France, and when the fermentation is the same, nature's advantages must tell, and then California will add another surprise to the world. You will remember, first, that its great product of gold enchanced values almost all the world over; then that the great yield of silver lessened the value of that metal in every land; next, that its wheat-ships whitened the seas; and now its wines and fruits are to come to gladden the heart of man."

Dr Perrin might have spoken with more particularity regarding those things which commend California, or southern California, so highly; but he was in a foreign land, among people to whom a general statement of facts was more acceptable.

The excellence of the Fresno district, as to the production of wine, is demonstrated, as regards the quality of its sweet wines; as regards the dry wines, and generally those wines requiring a perfect fermentation, the equableness of temperature required for them will have to be secured by artificial means. But as to the requirements for producing the raisin grape, it has them all in perfection. Where its soil is found elsewhere, its other favorable conditions do not exist; and where one or more of these conditions are found elsewhere, the soil is wanting. For instance, in Sonoma there is too much rain; Los Angeles county is too near the ocean, hence, foggy; going south from Fresno the alluvial soil soon disappears. The raisin region for maximum excellence is confined to portions of Fresno, Kern, Tulare, and Merced counties. It is now an admitted fact that Fresno stands preëminent for its production of raisins, both as to quantity and quality. They are preferred in the eastern states, and are finding a market in London in competition with the raisins of Spain.

In this, its natural home, the vine produces grapes when two years old. At three years, if well cared for, vines will yield three tons of grapes per acre on this prolific soil. From the time they are five years old, from six to nine tons of grapes per acre is a fair crop. As it takes a little over three tons of grapes to make one of raisins, the income per acre would be from $100 to $150 dollars. This is a fair, rough estimate, provided the land is of the superior sort described and is properly cultivated. Numerous individual instances have been cited to show what has been done. There may be some exaggeration, there naturally is; but the naked truth, or something less, is enough. The board of trade of Fresno offers some instances, of which the following are a selection. Their statements are striking, but I believe them to be substantially correct.

"C. C. Smith of Washington colony realized in 1885, from a large vineyard of six-year-old vines, packed and sold in market, $275 per acre, securing him a net return of $225. His returns for 1886 on forty-eight tons of raisins from twenty acres, at the usual prices, gave the gross receipts of over $400 per acre, or a net return of considerably over $300. Mr McKersy of Washington colony sold his crop of raisins from five-year-old vines, in bulk, unpacked, realizing somewhat over $160 per acre. T. C. White of Raisina vineyard, Central colony, from twenty-five acres of vines, harvested sixty tons of raisins, realizing in the San Francisco market over $12,000 gross receipts, or $480 per acre. J. T. Goodman, from sixty acres of four and five year old vines, sold his crop in bulk, unpacked, for $12,000, or $200 per acre. J. H. Braly, from seventy acres three-year-old vines, harvested 103 tons of raisins. George E. Freeman of Fresno colony, from six acres of two-year-old vines, harvested one ton of raisins per acre, which, sold in bulk, unpacked, realized $90 per acre. Miss M. F. Austin of Hedge Row vineyard, Central colony, sold her grapes from twenty-five acres, in 1889, on the vines, at $20 per ton, for which she received in cash $4,480, or $179 per acre and this free from the expense of picking."

From the 1st of January to November 15, 1890, Fresno shipped over the Southern Pacific railroad, of wine, raisins, dried grapes, green fruit and dried fruit, 1,170 cars, or 23,400,900 pounds. In these figures are included only the products of Fresno county that were shipped from the Fresno city freight-depot. By careful estimate, it was calculated that 1,000,000 20-pound boxes of raisins were shipped during the year from this depot alone, about one half the total shipments from the state. An enormous yield, which, however, is comparatively insignificant when the capabilities of production are considered.

In this connection, and as incidentally bearing upon the question of a market for the maximum yield of the Fresno raisin district, as well, also, on account of its suggestiveness otherwise, the following article will be read with interest by all concerned in the viniculture of California. It is a letter to the Boston *Transcript*, from its Paris correspondent, dated November 19, 1890.

"Statistical work is so well done by the different administrations in France that full reliance can, as a rule, be placed upon any returns published by the authority of the government. This holds especially true of the report which invariably makes its appearance each year as to the vintage of the previous autumn. Ever since the phylloxera first appeared in the vineyards of France, fifteen years ago, the annual record has been one of almost unbroken disaster. In 1875, which was the most abundant vintage ever known, the French vineyards yielded nearly 2,000,000,000 gallons of wine. Since then the average under cultivation has been gradually decreasing, being now nearly 2,500,000 acres less than it was then, and the total quantity of wine made has been decreasing in still greater proportions. Thus while nearly 1,000,000,000 gallons were made in the three or four years which succeeded the first appearance of the phylloxera, the figures have gone on falling to 546,000,000 gallons in 1887. Things mended a little in 1888, when the vintage reached nearly 700,000,000 gallons, and it was hoped that the crisis had been surmounted.

"But although the damage done by the phylloxera does not appear to have increased, other causes, such as unfavorable weather and the black rot among the southern vines, contributed to reduce the quantity. Nor, by all accounts, save in one or two favored districts, does the quality appear to be such as to make up for the lack of quantity; this being the case, it is not surprising to hear that France, which at one time may be said to have supplied wine to the rest of Europe and to many countries in the New World, last year imported nearly six times as much wine as she exported, for the exports were not much in excess of 40,000,000 gallons, while the imports were about 229,000,000. How striking is the contrast which the present state of thing offers with the halcyon days that preceded the appearance of the phylloxera, when the exports were 80,000,000 gallons, and the imports only 6,000,000 gallons.

"What are French wines made of? Last year France produced about 700,000,000 gallons of wine, and herself consumes not far short of 1,000,000,000 gallons, to say nothing of the exportation. How, then, was the rest of the 'wine' produced? Clearly, it was artificially produced somehow. But how? From Levantine raisins, some say.

"The method of making wine from saccharified fruit has been known ever since the days of Mago of Carthage, who is said to have flourished about 550 B. C. There has been for at least twelve years a steadily increasing importation of raisins, or, as they are known in the Mediterranean trade, of *uva secca*, from Italy and Greece into France, for wine-making purposes; and the manufacture of wine from dry raisins has, since the invasion of the French vineyards by the phylloxera, made wonderful progress, for while fifteen years ago, when only required for table purposes, the imports of raisins and currants did not exceed 6,000 or 7,000 tons, the total for the last three or four years has averaged 65,000 tons, this being considered equivalent to 270,000 tons of fresh grapes. The greater part of these raisins and currants come from Turkey and Greece.

"The raisins (dried grapes) which are sent to Marseilles from Asia Minor are of the black variety, but the Corinth raisins, which are known to us as 'currants,' are the best, as they do not contain any pips, while the crop is so large that it often reaches a ton per acre. The mode of drying the fruit varies very much, for in Turkey and Greece the bunches of grapes are simply laid on the ground and the sun is allowed to dry them. They are then scooped up with a shovel, no pains being taken to remove the sand and gravel which have accumulated. In many vineyards of the Greek Archipelago the grapes are allowed to dry upon the vine, after the end of the stem has been twisted so as to prevent the sap ascending. The average price of these raisins is 5 cents per pound, and the duty is only 62 cents per hundredweight in France.

"The preparation of the wine made from these raisins is not at all an elaborate business, for as M. Boussingault, the famous French chemist, points out in a recent report to the ministers of agriculture, all that is necessary is to put the raisins into a vat filled with water at a temperature of 68° Farenheit, there being fifty-five gallons of water to every hundredweight of raisins. A small quantity of sugar is sometimes added to quicken the fermentation. This fermentation soon occurs, and generally lasts for a week or so, at the end of which period the liquid is drawn off and the wine is made. As a rule, it is of a very pale color, and when it is deemed desirable to make it look like ordinary table wine, it is mixed with some very dark Spanish wine. These wines contain from 7 to 10 per cent of alcohol, but they have but very little tannin, and do not keep long. When wine is made from raisins, with care, and under these conditions, its cost price is very low, for one hundredweight of raisins is now worth, duty included, more than $7, and, making full allowance for the expense of manufacture, the wine can be sold at a profit of 16 cents per gallon, whereas, in reality, the wholesale price is more than double.

"The liquor thus made is pronounced by M. Boussingault to be perfectly wholesome, possessing many of the properties of wine made from the juice of the fresh grape, and to be infinitely preferable to the mixtures, most of them very deleterious, sold as genuine wines. I find, according to the latest statistics published by the administration as to the vintage, that not less than 44,000,000 gallons were made in one year from dried grapes."

The earlier pioneers of the Fresno settlement did something in the nature of planting colonies. They made excursions by railroad from San Francisco, and the tradition is, that their efforts to induce settlement were not favorably met in many instances, so forbidding was the aspect of the land they had to offer for sale. The prospective purchasers, on more than one occasion, went away disappointed, and would not have been able to credit the statements of the promoters referred to, but for their earnest and honest assurances of good faith and their showing of what had been done. Colonization in the settlement of Fresno land therefore consisted in the sale of large tracts, subdivided into lots of from twenty to forty acres and upwards by enterprising real estate agents. It has proved a very excellent plan all around, for agent, purchaser, and the country. Many happy homes have been the result.

I have intimated what can be done with raisins. The cultivation of the peach, prune, olive, fig, orange, apricot, and nectarine is extremely profitable, next only to that of grapes, and, in some instances, even greater; and this rather because these fruit trees do not produce their maximum until six years old, though profitable at three and a half years. Alfalfa, which is cut from three to four times a year, and averages from six to ten tons per acre, and is worth, say, eight dollars per ton, the acre yielding from $50 to $60, may profitably occupy an acre or two on a twenty-acre farm, and does also prove very lucrative on a large scale. Here is feed for horses and cows, and hogs and poultry; with some grain. Was ever nature more generous, or men more fortunate, to come upon such an opportunity?

Dr Perrin established six of these colonies in the neighborhood of Fresno, called Perrin colonies number one, two, three, four, five, and six, the first and second of 6,400 acres each, the third of 8,000, the fourth of about 10,000, the fifth of 6,000, and the sixth of 960 acres. These contain as many acres as all the other Fresno colonies put together. His plan has been a liberal one, to encourage settlement, that is, put water on the land, subdivide it into twenty-acre lots, and turn it over to the purchaser, in many cases asking hardly any payment down, rather allowing the settlers to get the advantage of the appreciation of the property by irrigation, and to pay for it afterward from the sale of produce.

A poor man, while waiting for his vines to mature, if he has water on his land, can raise his vegetables and have butter and eggs for market, and be self-sustaining. He has sold as much as about 4,000 acres in one year in this way. The wealth produced on small farms, every square foot of soil on which is nurtured by its proprietor, aggregates something wonderful, and surpasses the understanding of those who have farmed only on a large scale. The tendency is largely in the direction of so subdividing the land. What a prospect it is, that of Fresno city, in the center of a parallelogram containing about 1,600 square miles of these small farms. It would be grand and unique, a mammoth city, in the country, or *rus in urbe.* This, or something like this, is what it is going to be.

To have been one of the founders of this metropolis will be worthy of mention. It is preëminently in this phase, as in all other phases of the life of Fresno county, that Dr Perrin has been active in promoting enlargement, improvement, advancement. He first purchased the land on which Malaga, Fowler, and Herndon are now located, having in this way secured three out of four depots on the line of the Southern Pacific railroad, en route from the San Joaquin to Kings river. Herndon was named in honor of his wife. He had great faith in the country, but it has outstripped all his expectation; its expansion has proved a series of surprises.

Sixteen years ago, Fresno city, which now has about 13,000 inhabitants, was a hamlet in the midst of a sterile region, with not a house, a tree, or a tall weed in sight. And yet, with all its present luxuriance, this section is only in the incipiency of its development.

Dr Perrin was heard to remark to an English friend: "When you see at a pier in Liverpool a steamer six hundred feet in length, with the black smoke rolling from her chimneys, all on board bustle and despatch, the crew toiling to receive and stow away freight, the officers passing to and fro giving hurried orders, friends bidding good by over and again to friends, you naturally infer that the great ship is about to make an ocean voyage to some important metropolis—to New York, perhaps. Preparations on such a grand scale and arrangements of such a character are not made without intelligent design and definite purpose. Now, then, if you look about you from the dome of the court-house in the city of Fresno, what do you see? and what evidences of intention do you discern? Within easy range of vision, under a cloudless sky, you behold rising up to the west of you, to an altitude of from eight to fifteen thousand feet, the Sierra Nevada mountains, which contain vast reservoirs of snow, ready to melt as the season demands, and flow down impregnated with fertilizers through the San Joaquin and Kings rivers, into an alluvial delta comprising several million acres of marvellously productive land, with scarcely a stone or pebble on its entire surface, shut off from the cold winds of the interior by the Sierras, and from the fogs and dampness of the ocean by the Coast Range of mountains, lying under genial sunshine, with the grape, the fig, the apricot, the pear, the peach, the prune, the olive, and the orange growing to perfection. With such a view spread out before you, and having a knowledge of the conditions presented, can you doubt that such preparation indicates a great future development?

The Fresno Canal and Irrigation company's property consists of its water, its ditches for distributing water, and about 10,000 acres of land. It was purchased from M. J. Church in 1886, as stated; in 1892 its extension had greatly increased, while it has continuously added proportionately to the value of the large district depending upon it for irrigation. Fortunately for the cause of irrigation, Dr Perrin, with the able assistance of his brother Robert and eminent counsel, succeeded in establishing the right of the canal company to a large volume of water through the statute of limitations; and by contesting the claim to the title to the property in their possession, set up by the riparianists who were seeking to deprive the canal company of its water, he succeeded in effecting a purchase of the property from them, and in this way perfected the title of the canal company to 3,000 cubic feet of water per second, an amount sufficient in time to irrigate about 500,000 acres of land, which when completely irrigated should yield an income of at least $100 per acre, or more than $50,000,000 per annum. In this struggle the talents of himself and his brother were needed, for the forces arrayed on the other side were powerful, numerous, and subtle. How beneficent that this should so happen for the actual good proceeding directly therefrom, and perhaps how much more beneficent in this, that thereby a living argument has been to prove that the first essential of agricultural life in the vast arid tracts of California is irrigation.

The canal has grown into a great system. It has gone forward from its small beginnings, in 1869 ramifying by percolation and saturation of the soil of a very great area. It comprises four canals, which divert the water from the main canal, that receives the river through the head-gate, each of which is more than twenty miles long, and aggregate 150 miles. These, with other and smaller canals, would amount to 600 miles, and yet more in lateral ditches. The company has contracts now to irrigate about 150,000 acres, and will ultimately be able to irrigate about four times as much. The constant flow of water seeping and subirrigating has raised the water line in the watered part of the valley from 50 or 60 feet from the surface before irrigation, up to ten or twelve feet. In the beginning a quarter-section of land sometimes required ten or twelve cubic feet of water for complete irrigation; but in extending the area subject to this irrigation, the water being plentiful and its owners being desirous of thoroughly subduing all soil touched by it, water has not been measured. It is not uneconomical either, perhaps, to thoroughly wet the ground first by subirrigation, for surface irrigation thereafter is a slight affair, the quantity of water required being reduced to the minimum. In fact, on some portions of the area irrigated, the saturation has been so complete that, depending now, on seepage, no more water is received for irrigation, and drainage is resorted to, in order to keep the water line at the proper depth.

The company sells its water rights for five dollars per acre, and makes a permanent annual charge thereafter of 62½ cents per acre as ditch tax. It charges about $1,000 a cubic foot of water per second, as against from about $30,000 for the same in Los Angeles county, in some parts of which a cubic foot of water per second is worth $50,000. It runs some of its water to the town of Fresno for sewerage and fire purposes. The company's canal is one of the few in California that have prospered. Its management has been good; it has been handled by Dr Perrin and his associates liberally. They regard it as an enterprise of extreme concern to the entire community. It has been the developer of Fresno, a great majority of the large horticultural undertakings and the planting of the small farming settlements, called colonies, having been the outgrowth of it.

Among his other land enterprises, Dr Perrin, with others, formed the Fresno land company, of which he was made president, an organization which purchased for improvement by canal construction a large tract of land.

Robert Perrin, who remained in Alabama to settle up their affairs when his brother Dr Perrin came to California, arrived in San Francisco toward the close of the year 1869. Since then he and the doctor have worked together, having a common end and aim. He is a very able lawyer, and in this capacity has been a most valuable coadjutor in the actual litigation which his brother and himself have found inevitable, as well as that which has had to be avoided by them in their large and complicated undertakings. His knowledge of men is sound, and his judgment of their plans and motives remarkably direct and clear. He is circumspect in speech and action, and is seldom taken unawares or at a disadvantage, possessing a most remarkable faculty of order, of disentangling business affairs that have fallen into confusion. He is patient, self-controlled, even-tempered, cool and deliberate, earnest in all things, loyal and brave, and withal a man of scrupulous honor. Tall and slender, his appearance is grave and dignified. When roused to the occasion he develops a personal power that one of his quiet, unpretentious and retiring manners might not be supposed to possess. In the court-house pleading a case, on the stump discussing vital political issues, he is eloquent and convincing. In Alabama, he practised law in partnership with Hon. James D. Webb, one of the leading lawyers of that state. He was a successful cotton-planter after the war. Born in Green county, Alabama, June 24, 1836, he grew up o. Burton's hill plantation, and was under private tuition until he entered the university of Alabama, from which he graduated in 1855. Two years later he was admitted to the practice of law upon examination before the supreme court of the state. When the war broke out he entered the Fifth Alabama regiment as a private, and before its close, he served as an officer of artillery in some of the most prominent battles.

Dr Perrin's children by his first wife, whose decease occurred in June 17, 1883, are three daughters, the eldest of whom is twenty-one years of age, and the youngest twelve, Addie Burt, Helen Herndon, and Virginia Herndon; and one son, Edward Burt. Miss Addie Perrin was educated at the well-known school of Miss Porter, at Farmington, Connecticut, which school Miss Helen Perrin is at present attending. The greatest care has been bestowed upon their education, no pains or expense spared to procure the most talented and thorough tutors for them at home and at private schools. Their development in scholarship, character, and manners has been all that could be asked, a reproduction of the most refined breeding and excellent inherited traits. Edward Burt, though merely a lad in years, has given evidence, by his advanced knowledge of books, his good practical judgment, and superb moral courage, that he will not be an unworthy representative of his family.

On the 23d of June, 1887, Dr Perrin was married to Miss Lilo M. McMullen, the daughter of Mr and Mrs John McMullen, early residents of California, southern people of large wealth and the best social standing. The wedding took place at the residence of Mrs McMullen, on California Street, in the morning, and was a brilliant affair. In the afternoon, the groom and bride, accompanied by the latter's sister, Miss Bettie McMullen, took the cars for the east and Europe, and with Paris for headquarters, were absent nine months. During his honeymoon abroad, combining business with pleasure, the doctor studied viticulture. This marriage was blessed in 1889 by the birth of a son, named for his mother, Lilo. The following paragraph from the St Louis *Spectator*, April 5, 1887, in which Mrs Perrin, then Miss McMullen, appears as one of the type of American beauties, is very just: "Miss Lilo McMullen, whose portrait accompanies this issue of the *Spectator*, was born in Flemingsburg, Kentucky, though her home is in San Francisco. Her father, Captain John McMullen, was an officer in the famous Texan rangers during the Mexican war, and was one of the pioneers in the gold-field days of California. Her mother was Miss Eliza Morgan, a native of Kentucky, and a kinswoman of General Daniel Morgan of revolutionary fame, and niece of Commodore Morgan of the United States navy, and a cousin of the renowned confederate cavalryman General John Morgan. Miss McMullen is a very intelligent lady, strikingly handsome, cultivated, and prominent in social qualities. Miss McMullen is tall, slender, and beautifully proportioned, with an exquisite blonde complexion, golden hair, and dark brown eyes, with long dark silken lashes and eyebrows, making a picture that would be striking in any assemblage. She is queenly in her carriage, thoroughly free and unaffected in manner, delightfully gifted in conversation, and possessed of an infinite fund of delicate womanly tact. She dresses with taste and elegance, many of her costumes during her recent stay in Washington being almost royally magnificent. During her stay in Washington this winter no entertainment was deemed complete without her, and she was in perfect demand at receptions, dinners, soireés, germans, balls, and theatre and opera parties. To her credit be it said, she was popular with ladies young and old, as with the gentlemen. On a brief visit to New York since leaving Washington, she was the recipient of many pleasant and gratifying attentions, and left none but agreeable recollections of herself among her new-made Gotham friends."

Thus briefly has been presented a history of a man who, contributing largely to the sum of activity and progress on the Pacific coast, has done so in his own way, after the fashion of his individuality. By virtue of his record he is a factor in affairs that constitute the life of the community. As such he has been studied; that is to say, because of his importance to the public, the world, now and forever. What he has done and is doing among the actual builders of the commonwealth are those things on account of which and through which he is known. His connections, his associations, his opinions, his experience, his personality and environment, have been considered in passing.

In politics he did not differ from his neighbors in the south in doctrine; he thought that the states had the right to secede. But in his judgment secession was inexpedient if it were going to involve the two sections in war, for he knew the relative strength of the southern and the northern sections, and he dreaded the argument of force, which, at best, is cruel and illogical. Since the war he has been a conservative democrat, interested in all economic measures, but taking small interest in party affairs. He has been too busy to participate in elections, never asking or being willing to accept office for himself. Discharging only the plain duties of the citizen in this respect, his chief care has been, so far as politics is concerned, to see that his own and other similar great enterprises should suffer no harm, but have the benefit of good government. Wherever you find him during the business part of the day, he is apt to be the central figure in a throng of busy man who are associated with or employed by him and at work under his generalship. Though a member of the Pacific Union club, he spends his leisure at home. His tastes are domestic; his affections centre in the household, where dwell duty, love, and honor. Any part that he has taken in associations of whatever nature has been incidental, not a part of his régime. His energies run to those things the doing of which depend upon himself or his lieutenants; his great personal labors and intense concentration thereupon have kept him out of organizations with only general objects in view. As to charity, it need only be said that he never turns away from his fellow-man in trouble without contributing to his relief. He sends periodically to the south an offering of heart to the widows and orphans of confederate soldiers, and to needy and worthy persons left destitute by the war.

His father and mother were baptists; in his maturer years he allied himself to the episcopal church, and became junior warden of St Luke's, this city, of which he is a consistent member. His religious views were derived literally from scripture, but confirmed and fortified by judgment. His faith is not the faith in traditions or dogmas, but is the essence of things to come. He possesses in a marked degree the quality of reverence, without which there can be no trust either in God or man, which is but another name for religion, binding men to one another and all to the Creator. The moral law as learned from the bible he holds is the salvation of nations as well as of individuals. Says he: "I feel an anxiety regarding the French, whose standard of morality, I fear, is not as high as it once was. The German people under Emperor William were advancing rapidly. Then there seemed to be great virtue, sincerity, and honesty among them. So long as this status prevails a nation will grow and prosper."

While travelling in Europe he was a critical observer, noting differences, making comparisons, penetrating into all the sociological as well as geological phenomena presented to him. Such perception is a means of intellectual growth; the profound observer is as rare as the true poet. "Every person," says Gibbon, "has two educations; one which he receives from others, and one, more important, which he gives to himself." Or to put it differently and proverbially, "the strong man and the water fowl channel their own path."

The life of Dr Perrin is the history of much, were it only his leading part in the Fresno development—a work of greater utility—one that will be attended with wider and better results to mankind than can be appreciated at this time—results most beneficent and far-reaching, a conquest of peace. His whole nature being averse to idleness; he has been a toiler all his life. Difficulties seem only to have evoked his powers of labor and endurance, bringing into play faculties that might otherwise have lain dormant. Only the idler feels labor to be a curse. In reality it is a blessing; it subdues the earth and dignifies man.

Dr Perrin has lived largely in advance of the present time, realizing that grand things must be waited for; that the best fruits ripen the slowest. Gifted with unconquerable will, tireless energy, and inflexible purpose, he is of self-confident and of sanguine temperament. Foreseeing great opportunities, he has been equal to making the most of them. His business is part of the world's work, his share of the great activities which render society possible. The perpetual call on one's readiness, self-control, and vigor which business makes, the constant appeal to the intellect, the stress upon the will, the necessity for rapid and responsible exercise of judgment—all these things constitute a high culture. Voltaire insisted that the real spirit of letters and business is the same. Dr Perrin is equally a man of books and affairs. His mind is like a beehive, "full of food collected with incessant industry from the choicest stores of nature." Business tries character severely; it puts it to the test, honesty, self-denial, justice, and truthfulness. The man who passes through this ordeal unstained is, in my opinion, more truly courageous than the soldier who looks into the cannon's mouth unterrified. Dr Perrin's record as a man of affairs is spotless. In the acquisition of wealth and power, he has simply followed the bent of his inclination, filling well the role that fell to his lot. The exhilaration of his work and the good it would do has been his pleasure. His activity has been always beneficent, because in the line of development and progress. His personal ambition has proved a source of enormous vitality expended for the promotion of the general welfare. If time and inclination shall permit him to establish the mammoth vineyard and orchard, as he has contemplated doing, he will thereby bring comfort to other thousands of worthy men and women who now crave the privilege of toil. This is a right use of a man's talent; and when he is willing to put his wealth into such a project, we may be sure that he appreciates money for its good uses. Possessed of liberal culture and large experience, kind and polite, he inspires regard. The sense of duty to his fellow-men which he entertains he does not cherish as a sentiment; he practises it as a rule of conduct. Naturally of an excitable and fiery disposition, he controls himself and strengthens himself by reserving forces which, unrestrained, would run to waste in useless passion.

His face, as seen in the accompanying portrait, reveals his habit of fixed and earnest contemplation. The features are large and strong, and bespeak force of intellect and will. Of admirable physique, he stands about five feet nine inches in height, and weighs 175 pounds. Not conspicuous in manner or apparel, quite unpretentious, and free from affectation, he must be studied to be known and appreciated. In after years, when the early history of the reclamation of lands, especially by irrigation, is read by those to whom the original arid tracts in this state, such as were the plains of Fresno, shall be known only as tradition, his name will be high on the roll among those who spent their lives in subduing the desert to the happiest and best uses of mankind.

CHAPTER XX.

AGRICULTURE—OREGON AND WASHINGTON.

Farms of the Hudson's Bay Company—French Canadians in the Valley Willamette—Efforts of the Missionaries—Effect of California Gold on Oregon Farming—Great Floods—Gold in Oregon—Abundance of Markets—Cattle-raising—The Willamette Cattle Company Bring Stock from California—Early Farming in Washington Territory—Puget Sound Agricultural Company—American Settlers North of the Columbia - Stock-raising—Fairs and Societies—Eastern Washington—Sheep-raising.

Oregon was the first section of the Pacific coast to attract colonists from the United States. Its scenery, soil, and climate had impressed travellers like Kelley and Wyeth, and their glowing commendations kindled among their enterprising countrymen a strong desire for the possession of so fair a land. In the fourth decade of the present century an immigration set in from the Atlantic side fostered by political aspirations, and by 1846 acquired a foothold sufficient to wrest the Columbia region from the British.

The prize was well worth the effort, for the region drained by the Columbia was both rich and extensive. Oregon alone, which forms only one of its three divisions, covers 61,000,000 acres, and embraces a large number of fertile river bottoms. The most inviting are situated in the wealthier western section, which has an average width of 120 miles, while that of eastern Oregon is 230 miles. The gem of all is the Willamette valley, 60 miles in breadth, drained by a river navigable for 125 miles from its mouth, and containing 5,000,000 acres of land, of mingled hill and dale, and broad, fertile plains, watered by numerous tributaries, and divided among eight counties. Below, in transverse direction, are the Umpqua and Rogue River valleys, and in the north the Umatilla, second in rank, which, together with the Grand Ronde, embraces the famous wheat region of northeastern Oregon. The last-named valley contains 280,000 acres of the best quality of farming land.

Eastern Oregon covers two-thirds of the territory, with large areas of wheat-growing plains, while much of it is suited for corn. Portions are adapted to viticulture, and there are large tracts that are fitted only for stock-raising. The agricultural resources are here much greater, however, than the dryness of the surface indicates, for much of the soil is fertile, and though needing irrigation in some localities, as a rule retains its moisture even on the hilltops whenever the winter rains have been fairly abundant.

The warm ocean currents, the cool west winds, and the orographic conditions of the country tend to produce a variety of climates. Along the seashore there is a mild and even temperature, varying but little in summer or winter. Behind the coast range the warmth increases during summer. Rogue River valley is somewhat dryer during the middle of the year and colder in winter than the Umpqua. Eastern Oregon, like other interior plateaux, presents greater extremes, and in the southeastern section, which is mountainous, the cold is still more severe, and attended with a heavier snowfall.

The rainy season begins in the middle of October, and lasts for six months, four of them being very wet. The precipitation at Rogue river is less by one-half than at Portland, and during summer the former receives but little of the showers and dew that keep the earth green to the northward. The fogs near the coast serve to counteract the frosts. Snow is rare in the lowlands west of the Cascade mountains, but beyond that range the winter is sharp, though short, snow remaining on the ground about a month. The rainfall east of the Cascades is very slight during the summer, with an average for the year of barely 12 inches in Grant county, of 16 in Lake county, of nearly 20 in Klamath, and somewhat over 20 in the northeast, while in the coast counties the average is 65 inches, in the Willamette valley 50 inches, Umpqua 35, and Rogue river only 22 inches. Even during the dryest months—July and August—there is a slight precipitation, and in June the main valley receives an inch and a half of moisture. On two days out of three, taking the average of the year, there is no rainfall.

Thus it will be seen that in Oregon climatic conditions are in the main extremely favorable to agricultural development, and there is probably no portion of the Pacific coast whose soil and climate is so well adapted to the production of cereals.

Agriculture was introduced into what was then the Oregon country by the Hudson's Bay company, a considerable number of acres being placed under cultivation near the trading stations. The farm at Fort Vancouver comprised about seven hundred acres, on which was raised an abundance of grain and vegetables, while apples, peaches, and strawberries were successfully cultivated, and sheep and cattle were pastured on the plains. As the retired Canadian servants of the company took up lands in the Willamette valley, they, too, in turn, tilled the soil and produced crops of cereals and vegetables. Thus was farming inaugurated in the present state of Oregon.

After the arrival in the valley of missionaries from the United States, their first farm was laid out, in the autumn of 1834, by Jason Lee and his associates, who harvested in the following year a good crop of wheat, oats, barley, and pease, besides potatoes and other vegetables. Thenceforth agriculture steadily progressed in the valley of the Willamette in proportion to the yearly accession of immigrants, so that in 1841 there were 120 farms, which yielded in that year 35,000 bushels of wheat, with a due proportion of other products.

In 1848 the number of white inhabitants and half-breeds in Oregon was between 10,000 and 12,000, most of whom were engaged in farming and cattle-raising. The portion of land cultivated on each farm was small, varying from twenty to fifty acres in localities within reach of the fur company's stations and of American merchants. More extensive cultivation would have been useless, as at that time there was no market for a surplus. Most of the land was very fertile, the best yielding from 40 to 60 bushels of wheat to the acre, and the poorest 20 bushels, the usual price of which was 62½ cents a bushel.

After the abatement of the California gold-fever, which for a time paralyzed agriculture in Oregon, a reaction set in, and an impetus was given to farming, the capabilities of the soil being fully tested before 1853. Moreover, at this time fruit trees which had been set out in 1847 began to bear, yielding extraordinary crops.

In 1861 Oregon sustained a severe setback in all her industries, through an inundation unparalleled since that of 1844, and with a destruction of property a hundredfold greater, inasmuch as in the former year the state was filled with populous and thriving communities, while in the latter the country was but sparsely inhabited. At the end of November a deluge of rain began, inundating the valleys west of the Cascade range. The banks of the Willamette were covered with the wreckage of houses, barns, bridges, and fencing; cattle and small stock, storehouses, mills, and other property were swept away, and numbers of lives were lost. At Oregon City all the mills, the breakwater, the hotel, the foundry, and many other structures were destroyed. Every house in Linn City and Champoeg was washed away. The Umpqua river rose to such a height that the whole of lower Scottsburg was destroyed, and the military road, on which $50,000 had been expended, was ruined. Toward Christmas the rain turned to snow, and the cold set in with unusual severity. Such a season carried disaster into the upper country, and on the plains men and cattle perished, the latter to the number of 25,000. In the following May another flood was caused by the rapid melting of an unusual quantity of snow. The damages sustained in the Columbia valley were estimated at over $100,000, though that part of the country was but sparsely settled. It was a widespread calamity, injuring all classes, but none so severely as the farmers.

But from this blow the country rapidly recovered. The discovery of gold in Oregon east of the Cascade range brought with it the means of recuperation, and gave a new stimulus to agriculture. Moreover, the means of communication, which the increasing demands of commerce developed, opened the way to foreign markets, and the production of wheat became the most important industry in Oregon. Its progress is displayed by the increase in the wheat crop from 2,340,000 bushels in 1870 to 7,486,000 bushels in 1880, and to 8,930,000 in 1885, in which last year the oat crop was 6,250,000 bushels, that of barley and rye 1,700,000, of corn 270,000, of potatoes 2,650,000 bushels, of hops 2,500,000 pounds, and of hay 377,000 tons.

Of these products large quantities were sent to California, to Puget sound, and to the mining regions eastward; but the bulk of exports to foreign countries consisted of wheat and flour, both of excellent quality. In 1885 the grain fleet numbered 113 vessels, in the following year 154, with a tonnage of 115,000 and 166,000 respectively; but in 1887 it fell off to 73 vessels, of 93,000 tons, or about midway between the figures for 1884 and 1885. The total wheat export in 1887 reached 3,478,000 centals, valued at $4,350,000, and of flour 458,000 barrels, valued at $1,740,000. In 1886 the wheat and flour shipments stood at

$6,000,000 and $2,200,000, most of them going to England.

Fruit culture is receiving more attention, with the opening of railway connection eastward, and the growing demand in the Atlantic states for early, choice, and cheap fruit. Apples and plums are the favorites, the crop in 1885 exceeding 2,000,000 bushels of the former, and 150,000 of the latter. The flavor and substance of orchard fruits are superior to those of California, and the size attained is very large, pears, for instance, reaching a weight of three pounds. Trees grow from five to seven feet the first year, and some bear fruit in the second year. They thrive far up the mountain slopes, and are almost exempt from pests. In the southern portion of the state figs, almonds, apricots, and grapes may be raised, and in eastern Oregon are many locations suitable for viticulture.

In 1885–6 the assessed acreage exceeded 7,000,000, valued at $38,000,000. Of this 1,240,000 acres were under cultivation, the largest body in the level and easily tilled Umatilla wheat region, next to which ranked Linn and Marion, followed by Polk and Yamhill counties. Owing to low prices the acreage decreased during the following season, wheat-growers turning their attention to other and more profitable crops. The census of 1880 estimates the improved land at 2,200,000 acres, divided among 16,200 farms, and valued at $57,000,000, machinery being worth $3,000,000.

The want of neat cattle was severely felt by the first Oregon pioneers, to whom John McLoughlin refused to sell stock from the company's herds. He was quite willing to assist settlers by lending them cows and oxen, but he was unwilling to diminish the size of his herds by actual sales, which, in view of the increasing immigration, he foresaw would so deplete them as soon to deprive him of the means of assisting newcomers. McLoughlin asserts that in 1825 the company had but twenty-seven head of cattle, which were allowed to multiply for many years, none of them being slaughtered.

In order to supply this want Jason Lee, Ewing Young, and others began to import cattle from California, where they could be purchased at low prices. Through their exertions the Willamette Cattle company was organized, in 1836, with Ewing Young as leader and P. L. Edwards as treasurer, which, with the assistance of W. A. Slacum, a government agent, raised a sufficient sum to engage in the enterprise. The result was that Young and Edwards, with eight other members of the company, embarked January 21st on board the ship *Loriot* for California, Slacum having offered to carry them thither.

After much trouble and difficulty, arising from the opposition of the authorities, Young and Edwards obtained permission to drive 700 head of cattle out of the country, on condition that they were purchased from the government, and not from the missions, to which they belonged. Not until the 22d of June was the whole number delivered; and then began the task of driving the half-wild animals for hundreds of miles through a region inhabited only by savages. So great were the hardships endured, and such the strain on the patience of the men, that quarrelling and insubordination almost put an end to the expedition. On September 12th Rogue river was reached, and during the following week the party were attacked by Indians on more than one occasion, but sustained no serious loss. About the middle of October the settlements were reached, when it was found that 630 cattle survived; but as Young had purchased a number of animals along the road, the loss incurred on the way was about 200 head. Those that were left were divided among the subscribers at $7.67 a head, according to each contributor's quota, McLoughlin, who had subscribed $900, taking a proportionate share for account of the Hudson's Bay company.

The settlers thus accomplished their object by rendering themselves in a great measure independent of the fur company. To Ewing Young must be given the credit of this enterprise. His knowledge of California enabled him to give the best advice as to the plan of operations, and his energy and experience to overcome the great difficulties attending its execution. He rose to an important position in the colony, and a few years later built a sawmill on the Chehalem river, which he conducted until the winter of 1840-1, when it was carried away by a flood. Soon after this misfortune he died, his mind having become affected by his many trials. The provisional government took charge of his estate, and only after long delay was it in part restored to his heirs.

Within recent years the growth of settlements has pushed stockmen to the hills, and more especially to eastern Oregon, where, in addition to the mountainous regions, only fit for cattle ranges, there is still a large area of unoccupied land, and where animals thrive well on the moisture-retaining soil, with its bunch-grass and other pasturage. The leading county for this industry is Grant, 13,000 square miles in extent, on which in 1885 grazed 92,000 head of cattle, 19,500 horses, 225,000 sheep, besides hogs and other stock. Next follows Umatilla with 42,000 head of cattle, 227,000 horses, and 254,000 sheep. The total number of cattle reached 373,000, a slight increase only upon the figures for 1880, when Baker county vied with Grant for the leading position. The markets for stock being on the Atlantic slope, the states nearer the Rocky mountains have the advantage.

Dairying is particularly suited to the coast region with its manifold and almost perennial grasses. The North Pacific Dairy association has done much to develop this industry, but wide coöperation is required in order to raise the quality of products and reduce expenses. The census for 1880 places the production of butter at 2,450,000 pounds, and of cheese at 153,000 pounds, chiefly in the central Willamette counties.

Among the most promising industries is sheep-raising, for which the country is well suited, as shown by the superior quality of the wool, the Oregon product obtaining higher price than almost any other on the coast. The Umpqua valley fleece ranks foremost, then that of western Oregon, which is graded as equal to the wool from Montana and northern California. In the superior breed of the sheep lies the main cause for its excellence.

The first sheep were introduced from California in 1842 by J. P. Leese. This inferior New Mexican and Mexican breed was surpassed by the flocks brought by immigrants from the eastern states, the first one being that of J. and A. Shaw in 1844. Soon afterward a better class arrived, while the inferior grades were rapidly eliminated by exportatien to the mines of California and elsewhere. In 1866 the state sent 80,000 sheep through the tollgate at Cañonville to replenish the drought-stricken flocks of her southern neighbor. For the last score of years the imported sheep have been nearly all of the improved American Merino, together with some French and English stock. A cool climate and abundance of feed tend to maintain the standard reached by the selection of breeds. The consequent profits have given to this industry a great impulse, so that the number of sheep has increased from 318,000 in 1870, and from 1,000,000, accordingly to the census of 1880, with a wool production of 5,700,000 pounds, to 1,700,000 in 1885, with a clip of 9,450,000 pounds. Other estimates insist on at least 2,500,000 sheep for this and following years, with a crop of 15,000,000 pounds. Umatilla and Grant counties lead with over 200,000 head each; then comes Douglas in western Oregon, with about half that number in 1880, though of late it has been surpassed by other eastern counties.

Swine are most numerous in the central counties, increasing in number from 165,000 in 1880 to more than 200,000 in 1885. Horses thrive best on the prairie tracts of the northeast, to which are assigned fully one-third of the total of 165,000 head in 1885. The value of livestock for that year is placed at $5,860,000 for horses and mules, about the same sum for cattle, $2,350,000 for sheep, and $237,000 for swine. The census of 1880 gives the total at $13,800,000 for all the livestock on the farms of Oregon.

In what is now the territory of Washington the first agriculturists, apart from the fur magnates of Fort Vancouver, appear to have been Simon Plomondeau and a man named Faincant. Plomondeau, who could neither read nor write, had been in the Hudson's Bay company's service for sixteen years, and was advised by McLoughlin to take up a farm at the lower end of the Cowlitz prairie, which he did in 1837, Faincant selecting an adjacent one during the same year. These pioneer farmers were followed by others, who settled on the banks of the Cowlitz river and formed what was called the French colony, when the territory began to be invaded by American immigrants. Then followed the establishment of the Cowlitz farm in 1839, on which many people were employed, and with such good results that by 1846 it had become a beautiful and valuable property, carefully and scientifically cultivated. At that date there were 1,500 acres fenced and under cultivation, on which eleven commodious barns had been erected. In the vicinity 1,000 head of cattle, 2,000 sheep, and 200 horses were pastured. The first wheat-fields in western Washington were those cultivated by the Hudson's Bay company on this farm and in the Columbia valley. During the same period some farming was done at Fort Nisqually, near which good crops of wheat, pease, oats, and potatoes were raised. The land, however, was there considered better adapted to pastoral purposes than to cultivation, and when the Puget Sound Agricultural association was incorporated the company confined its operations principally to stock-raising. By permission of the Mexican government sheep and horned cattle were obtained from California, while finer breeds were imported from England to cross with the coarser American grades.

Notwithstanding the objection raised to American settlers, the Hudson's Bay company's agents were nowise churlish in their treatment of those whom they looked upon as intruders. Thus in 1845 the pioneer Simmons was allowed to purchase at Fort Nisqually 200 bushels of wheat at 80 cents a bushel, 100 of pease at $1, 300 of potatoes at 50 cents, and a dozen head of cattle at $12 each. With this supply of seed and stock American farming in Washington may be considered to have commenced. Among the settlers of 1847 was Thomas M. Chambers with his four sons, all of whom took up claims in the Puget sound region. The eldest, David, selected a small plain three miles and a half east of Olympia, and there amassed a fortune by stock-raising. The first band of choice American cattle taken to the Sound country was introduced in 1851 by John N. Low, of Ohio, who brought to Oregon in that year a herd of stock for dairy purposes, and settled at Alki Point, a beginning which led to the founding of Seattle on the opposite side of the bay in 1852. Among the earliest cultivators of the soil mention must be made of Levi Lathrop Smith, who in 1846 built his cabin on the site of the present capital of Washington, and enclosed two acres of land in which corn, beans, pumpkins, squashes, potatoes, pease, turnips, cabbages, melons, cucumbers, beets, parsnips, carrots, onions, tomatoes, radishes, lettuce, parsley, sweet-fennel, pepper-grass, summer-savory, and sunflowers were cultivated. Thus it appears that the earliest settlers were provided with a large variety of vegetables and garden produce.

From these small beginnings agriculture soon became an important industry in western Washington, the development from the first being especially marked in the region of which Lewis county now forms the most prominent part. The open tracts of land in the timbered valleys about Puget sound were well adapted to wheat-growing, but this portion of the country, on account of its rich growth of grass, has been used principally as meadow land, both for pasturage and the production of hay, of which the yield is from three to four tons to the acre. The reclamation of tide-lands about the mouths of the rivers in Whatcom and Snohomish counties has added a large area to the grain-producing lands of western Washington. On these Samuel Calhoun and Michael Sullivan were the first settlers, having taken up claims in 1864, on the Swinomish bayou, which is connected with the Skagit river by extensive marshes. Sullivan's first crop was gathered in 1868. He sowed thirty-seven acres in oats, with five bushels of seed to the acre, and reaped 4,000 bushels, or over 100 bushels per acre. Calhoun, in 1869, raised a crop of barley on twenty-one acres with equally favorable results. By 1875 there were twenty settlers on the Swinomish tide-lands, each having under cultivation 100 acres, on which were raised forty bushels of spring wheat, eighty of winter wheat, seventy-five of barley and eighty of oats to the acre. In 1864 the experiment of hop-growing was tried by Jacob Meeker on his farm in the Puyallup valley. He planted half an acre, which yielded 200 pounds and sold at eighty-five cents per pound. The first hop-yard was established by Thompson and Meade in 1872.

Encouragement was given to agriculture by the establishment of agricultural societies in several counties, Walla Walla taking the lead, where in 1867 the first fair was held. Whatcom county organized a society in 1866 and in 1869 the Washington Agricultural and Manufacturing society was formed. Clarke county organized an agricultural and mechanical society in July 1868, and at a meeting held in Olympia, 1871, steps were taken to organize a territorial agricultural society under the name of the Western Washington Industrial association, which held its first annual exhibition in October 1872 at Olympia.

Eastern Washington, however, has eclipsed the western division of the territory both in wheat-growing and stock-raising. For many years the first settlers east of the Cascade range failed to observe the adaptability of the soil and climate for the production of cereals, and confined themselves to raising cattle on the nutritious bunch-grass with which that region abounds.

On the discovery of gold, and consequent inrush of miners, agriculture became an imperative necessity. At first only the river valleys were placed under cultivation, which in time was extended to the hillsides, and finally to the summits, beyond the possibility of irrigation. It now became known that wherever bunch-grass would grow naturally, the cereals, especially wheat, also thrived well, heavy crops of the finest quality of grain being produced. The soil which yields so bounteous a return is a dark loam, composed of deep alluvial deposits combined with volcanic ash, overlying a clay subsoil. Though the climate is dry and the rainfall scanty, the soil, thus resting on an impervious base, retains an ample sufficiency of moisture, and crops of from fifty to sixty bushels of wheat to the acre are by no means uncommon. It has been estimated that the wheat-lands of eastern Washington are capable of yielding over 100,000,000 bushels annually.

In 1882 there were 384,658 acres under cultivation in all Washington territory, with a total product valued at $7,052,902, including 2,440,000 bushels of wheat, with a yield of 16.5 per acre, worth $2,025,200, with 2,120,000 of oats, averaging 40 bushels, and worth $1,038,800; of barley, 651,518, with 35.5 to the acre, and valued at $443,032; of potatoes, 1,175,100, with 140.4 to the acre, worth $940,080; and of hay, 175,000 tons, or 1.14 to the acre, worth $2,537,500.

Two-thirds of eastern Washington consist of grazing lands of great excellence, and immense herds of cattle and flocks of sheep are raised thereon. Though the Walla Walla valley long enjoyed the greatest reputation as a feeding-ground, the Yakima country has been found to excel it as a stock-range, both as regards pasturage and mildness of climate. The Palouse region was also famous as a cattle country, but for some time past has been gradually transformed into grain-fields. At an early date the people of the Puget sound country and the Cowlitz and Chehalis valleys were mainly dependent upon cattle-raising for their support, and annually large quantities of livestock were exported to Vancouver island. In 1862 about $1,000,000 worth were shipped to Victoria from Oregon and Washington, the greater portion being from western Washington, representing the ready cash of the farmers. Much inconvenience was experienced in 1863, owing to the government prohibiting the exportation of livestock, a measure adopted with a view to prevent the leaders of the southern confederacy from obtaining supplies from Canada. The prohibition was not intended to affect Washington, but Victor Smith, then collector of the Puget sound district, saw fit to enforce it. For some months much excitement prevailed, and no little hostility was felt toward the collector. When the embargo was raised and the money market was relieved there was great rejoicing. With regard to prices, these gradually declined with the increase of stock. In 1857 I. N. Ebey sold four Spanish cows with calves for eighty dollars apiece; in the following year the average price for cattle on Whidbey island was about $47, and in 1859 a little over $38 for common stock. In 1868 the average price had declined to $15.

In 1882 the total value of all the livestock in Washington territory was estimated at about $7,500,000, including horses worth $3,400,000, and in number over 55,000; more than 31,000 milch cows, worth $980,000; and 117,300 oxen and other animals, valued approximately at $2,814,000.

Sheep-raising, both for mutton and wool, became a very profitable industry, and for many years large flocks were annually driven from the plains of eastern Washington to Nebraska, for shipment to eastern markets. In western Washington large tracts of land on the Cowlitz prairie, the Nisqually plains, as well as Whidbey island and the Haro archipelago islands, are well adapted to this industry, both as regards climate and abundance of food. It has already been mentioned that the first sheep were introduced by the Hudson's Bay company. Since that time various improved breeds have been imported by stock farmers, Watt taking the lead.

The year 1890 was one of the most prosperous in the agricultural, as in the commercial and industrial, annals of Washington, with grain crops of nearly 30,000,000 bushels, and hops valued at $2,000,000, while of other farm products there was also a profusion of growth. Sections before undeveloped were being brought under cultivation and within reach of market through the extension of her railroad systems, and vast herds of live-stock were pastured in the eastern portion of the state. Horticulture was assuming importance, with a rapidly increasing acreage in raisin grapes, in apples, plums, and berries, for all of which, as for other varieties, a large area was found to be well adapted, producing fruit in abundance and of excellent quality.

A. P. Knapp

CHAPTER XXI.

LIFE OF RICHARD BAXTER KNAPP.

He Takes His First Lessons on the Farm—The Foundation Laid in Portland—Patience to Labor and to Wait—Friend and Co-worker with the Farmers—The House of Knapp, Burrell and Company as a Factor in Development—His Place in it—Character.

Richard Baxter Knapp was born in Geneva, Ohio, July 28, 1839, the youngest in a family of seven children. His father, Auren Knapp, a native of Connecticut, went to Ohio in 1817, when he was twenty-three years of age. Sarah Maria Burrell, to whom he was married in Sheffield, Lorraine county, Ohio, February 1820, came from Massachusetts. The name, from which the final e is dropped, points to the German origin of the family, but they were early settlers on the Atlantic shore, and at this day the descendants reveal no traits of their ancestry, unless it be a Teutonic tenacity of purpose, will-power, and intelligence. Auren Knapp was well fitted to be a pioneer. He was strong in body and mind, active and determined. He drove an ox-team overland from Connecticut, the trip requiring several months, and accepted a piece of wild land as compensation, in default of money. This, his share of the wilderness, he brought under subjection, married and reared a family and continued to till the soil in the neighborhood of Geneva for about fifty years.

His pioneer experiences as a farmer were severe. For a bushel of wheat he could not get twenty-five cents in money, just enough to pay the postage on a letter home. It could be disposed of in trade, but coin was hard to get. Yet he grew to be a man of considerable means, having his place well stocked, and being able to command whatever ready money he needed—a successful man for his time and locality. He was laborious and energetic; he was always doing something. Deeply religious, and a member of the congregational church, conforming in his life so far as able to the letter and spirit of scripture as he understood it, he was in morals rigorous and exact. As he had been brought up so it was his ambition to bring up his children; his had been the puritan school and it seemed to him to be the best. And surely out of it have come many graduates who lead wherever difficulties have to be overcome, emergencies met—great work done requiring ingenuity, endurance, and self-control. Early in 1867 he came out to be with his three sons on the Pacific coast. When eighty-three years of age he died at the residence of his son, A. Knapp, junior, Knappa, Clatsop county, Oregon. He was of a long-lived family, his father having reached the age of eighty-eight years. His wife was like himself, earnest in religion, and joined him heartily in his endeavor to bring up their children in the way in which they should go. Her government, however, was largely by affection; in her love her children found the discipline of the household softened, though the criterion of behavior held up to them by her was ever the same as their father's, the inflexible law of scripture. But they lived consistently with the precepts they taught, and set the best example to their children. They were devoted to their growing family, and their highest ambition was to see them prove themselves worthy Christians and exemplary citizens. That the militant spirit of the church remained with them to the end is evinced by the name which they gave their last child, Richard Baxter.

Richard doubtless resolved within himself many a time, as has, perhaps, nearly every other boy under New England training, that as soon as he was able to assert himself he would do about as he pleased; yet when the opportunity came for self-assertion the disposition to rebel was gone. He had become old enough to realize the wholesomeness of the lessons which he had been required to learn, and to appreciate the principles by which a good life is controlled; moreover, he found that however lightly he might esteem the outward form of religious observance, he had grown up with a reverence for the fundamental truths of christianity. He was much influenced in the formation of his character by his mother's example. She was a woman of strong and serious mind, but very good and charitable; an excellent housewife, possessing tact in adapting means to ends, and making home comfortable, orderly, and attractive. Parents impress themselves thus constantly upon their children. The virtues exemplified by the former live and act in the minds of the latter when all else that they may have learned through the ear has been forgotten. Richard was reared on the farm. From the time that he was able to turn his hand to anything he made himself useful in whatever way he could; often the work was pretty long and hard, but idleness was an abomination. Yet, who has grown up healthy in mind and body, tending the stock, following the plow or mowing hay, but looks back upon the farm with pleasure? It is truly a nursery which continuously contributes brain, as well as brawn, to the community.

Richard's parents required him to mix study with work, according to the idea then obtaining that a boy should be schooled, but that he should earn his schooling. He was a boy of good parts, and did fairly well in school, but he manifested a self-reliant disposition; he was eager to get out into the world and make his own way, and he did not take kindly to study. He was never cut out for a bookworm. He went to the public school at intervals until he was sixteen years of age, and for three years after that attended a higher school or academy, getting altogether a fair English education. His father and mother were desirous that he should take a collegiate course, and fit himself for professional life, and it was a matter of regret with them that he was not ambitious in this direction. It was not until many years later in life that he began to think he had made a mistake not to devote himself more to the acquisition of knowledge from books. It is only natural and quite consistent, too, with his modesty that, occupying at this time a prominent position in commerce and society, and meeting with clever people of all sorts in the great world, he feels his lack of early culture.

Yet this is a sensitiveness, which, I apprehend, grows largely out of self-criticism; for I do not believe that the consummate man of business is less intelligent than the successful man of letters; for I assume that the talent by which a man is able to excel in commerce would bring him distinction in literature, if his tastes went that way. I feel quite sure that there is as much difficulty to overcome, as much to learn of men and things, in business as in books. As to the value of the things done by the exponents of books on the one hand, and by the representatives of trade on the other, accurate comparison is not practicable, but I should say that the results accomplished by the latter are as substantial and as valuable as the laurels won by the former. Broad-gauged men of affairs are too apt to be modest and self-depreciating. The spirit of active industry is the vital principle of the nation, and in this school is taught the best practical wisdom. As steady application to work is the healthiest training for every individual, so is it the best discipline of a state. The gods, says the poet, have placed labor and toil on the way leading to the elysian fields. Hugh Miller stated the result of his experience to be that even the hardest work is full of materials for self-improvement, and he was of the opinion that the training of the mechanic, by the exercise which it gives to his observant faculties, is more favorable to his growth as a man than the training afforded by any other condition. Surely as much may be said of commerce as a training school, for it calls into play every energy, mental and physical, developing in man the power of character, which is, after all, the man himself.

In the fall of 1858, being through with his academical studies, Richard went to Wisconsin, spent the winter there, and in the spring of 1859 came from New York by the way of Panamá to Oregon. The country had then a fresh, to-be-developed look. Portland consisted of about three thousand people, who lived close by the river, with a virgin forest growing down into town on the west, while the stumps of great fir-trees still obstructed the streets. There was no railroad or telegraphic outlet, and communication with the outside world depended mainly upon the fortnightly steamer from San Francisco, whose arrival was a great event. No large opportunities existed, nor could any be created. The problem was rather one of endurance, to labor and to wait. The country was rich in resources, and its future prosperity, sooner or later, was certain. He had been induced to come out to the Pacific coast by his eldest brother, Jabez B. Knapp, who was an Oregon pioneer of 1852. He, like the rest of the family, was anxious that Richard should continue at his books, but wrote to him that if he were not going to college to come to Oregon and he would find a place for him. In the year 1857, in company with W. C. Hull, he had gone into the produce commission business, shipping Oregon farm products to San

Francisco. The implement business was added later, and finally the produce business was dropped, the former being evolved out of the latter. In the summer of 1856 M. S. Burrell came into the house as a clerk, and continued in this position until 1860, when, Mr Hull retiring, he became a partner with his cousin, J. B. Knapp, under the firm name of Knapp, Burrell & Co., which name has ever since been retained. J. B. Knapp, the founder of the house, an excellent man and highly esteemed by all who knew him, having met with reverses in milling and other ventures, withdrew in 1870 to his dairy farm on the Columbia river, about twenty miles below Portland, where he has been living quietly ever since. Mr Burrell continued as partner in the business until his decease in April 1885. He was a man of energy and sterling character.

R. B. Knapp's history in connection with this business began directly after his arrival in Portland in the year 1859. He went in the store as a clerk at a salary of twenty-five dollars a month, and in debt from eight hundred to a thousand dollars, mainly for the expenses of the trip. This was not a very auspicious beginning; and compared with the present status of the man it affords a striking example of what may be achieved by one possessing the power of self-help and character. Being advanced from time to time as his industry and talent were recognized, he was enabled in a few years to pay off his debts. By this time he had made himself so much a part of the business, that as an inducement to have him remain, he was offered, and he accepted, partnership. Thus, starting out with less than nothing, as regards dollars and cents, he ultimately attains the most commanding position in his department of commerce in the north Pacific states.

Knapp, Burrell & Co. began business with limited means, keeping pace with the growth of the country until 1870, after which the business advanced more rapidly. Now it comprises not only the parent house in Portland, but also branch houses and agencies at all the principal points in Oregon and Washington. Upon the death of Mr Burrell the business was reorganized by the formation of a stock company, under the corporate title of Knapp, Burrell & Company. To all of the employés who had been a long time with the house and had filled important places, Mr Knapp gave the opportunity to take some of the stock, and he assisted those who had not money in order that they, too, might come in according to their ability. Thus the business was converted into an organism of which every employé is a part, having a personal interest in the success of the institution, not a dollar of the stock being held by any one who is not actually at work for the company. This wise and generous system has already produced excellent pecuniary results. It is gratifying to Mr Knapp, the principal stockholder, to have contributed in this way to the welfare of a large number of faithful employés.

In the development of Oregon and Washington the farmers and merchants have played reciprocal parts, and while the farmers have been at the foundation of wealth at all time, it is only what is due to the merchants to say, that without their accumulations, and large expenditure in providing the means of development, in building and endowing churches, schools, and benevolent institutions, the advancement of the country would be less by many years than it is. While it is true that agriculture has made commerce in the northwest, it is equally manifest that commerce has constantly given new and wider life to agriculture. The merchant dealing in agricultural implements has been correlated with the farmer, mutually helping and being helped by him, the two supplementing and complementing each other in enlarging their own estates and in contributing to the assets of the country.

To paint a picture of agriculture in Oregon to-day would be to discuss the subject under the light of every improvement that has been brought about by science and practice; while earlier farming in Oregon was carried forward crudely and sluggishly.

Who have been the agents in this transformation? I should say that three forces have been concerned in it: the farmer himself, the manufacturer, and the dealer who intervenes between them. Mr Knapp, or the house in which he has filled an important place, for the most part controlling it or shaping its policy, has been related in this way for more than thirty years with farming throughout the northwest. His establishment was the pioneer in its department, and has always maintained its position as the largest, most influential, best known, and also most highly respected. This means a great deal; it means that Mr Knapp, or his business house, has been a powerful friend and aid to farmers and farming. He and his associates planted themselves in the confidence of the agricultural community, and as it expanded and its wants multiplied, their business became wider and more varied, so that it may be said that their advancement at all times was parallel with or a little in advance of farming. The agricultural implement business is not a sinecure. It changes from day to day, improvements coming out constantly and new inventions relegating old ones to the background. The emergencies of this trade are not known or thought of in others, the goods of which are mostly staple articles. Much has had to be done to adapt implements to the conditions that are peculiar to the soil and the topography of this territory. Being familiar with the needs of his patrons, with whom he was in constant intercourse personally or by correspondence, in Portland or on the farms, he was enabled of himself and through his employés to assist in these adaptations. By thus coöperating with the men of the soil, Mr Knapp and his house have contributed substantially to the civilization, wealth, and happiness of the northwest as a factor in the advancement of its prime industry. His house has ever been a place of refuge and a tower of strength to agriculture throughout the entire section. Washington and Oregon farmers appreciate and acknowledge the generosity of Mr Knapp. He has long studied their interests, and he knows them and their needs better than recent people in the business possibly can. The relations sustained to them by his house have always been kind and friendly, and a good share of its business at this time is due to the appreciation of this fact.

The house of Knapp Burrell & Company has helped itself, but it has helped the community also, and I have no doubt that it has contributed far more indirectly to the wealth of the country than directly to its own bank account.

Mr Knapp is a master of the business in all its details, and is much interested in studying its possibilities for the future. He has thought much on the question of manufacturing farming implements in Oregon, which he considers altogether impracticable for the present, for the reason that the productions of such a manufactory would not have a sufficient home market. But he differs from those who think that Oregon timber is not adapted for the manufacture of agricultural implements.

He is a man of much information, obtained by friction among men whom it is valuable to know, by reading and extensive travels in the United States and Europe Asia and Africa. He is a close observer, and his views are broad and intelligent on all questions of an economic or social nature. He is a man of the world. He has builded the most elegant and at the same time the most substantial dwelling in the city of Portland, which is distinguished for its rich and tasteful private residences, and furnished it in such a manner that its interior is in harmony with its exterior. It is a veritable *bijou*, the construction of which, undertaken in the spirit of progress, has proved a good example. If an old-time pioneer neighbor should think it too large for a family of three, he must not forget that when we build we should not only allow ourselves ample room, but we should remember our friends also. Mr Knapp, though a man of decided social temperament, has never relished the fellowship of politics, and though he has often been urged to accept office he has never permitted his name to be used in this way. He has had neither taste nor time for it, though his political views are very decided, and republican. He is not desirous of public notice, but when his services as a citizen are needed he responds cheerfully to the requirement. At present he is one of the committee of fifteen who have in charge the construction of water works for the city—a body of able, representative men. Outside of his regular business he is engaged in and contributes largely to promote a number of local enterprises. He is a member of the masonic order, in which he has taken all the degrees but that of knights templar. He has received the thirty-second degree Scottish rites, and belongs to the royal arch and the mystic shrine. He has been for many years a friend and member of the library association of Portland, which is doing much to elevate public sentiment and form a taste for literature. He has done a generous part, without ostentation, in aid of benevolent institutions, as hospitals, schools and churches, without regard to sect or creed.

He married in 1867, in San Francisco, Miss Minnie A. Knapp, the daughter of his eldest brother's second wife, who having been adopted by him assumed his name. She was born in De Ruyter, Courtland county, New York, and educated in San Francisco. Possessed of rare personal charms and much taste and refinement, she is besides a zealous student, and having always devoted a great share of her leisure to reading, she has become familiar with a wide range of books, and by making herself conversant with new and meritorious works as they appear, she keeps up with the development of literature.

Mr and Mrs Knapp have one child, Lawrence H. Knapp, born June 4, 1869. Lawrence resembles his father as regards the choice between business and books, and appears satisfied with the prospect of repeating the latter's experience. His father was anxious that he should be liberally educated, but finally yielded to him and allowed him to begin a life of business in the house of Knapp Burrell & Company, not, however, until he had tried in vain by fourteen months of travel in Europe to wean him from his purpose. This is a pleasing instance of father and son taking counsel as to what is agreeable and best, which does not diminish parental authority, but strengthens filial affection. Mr Knapp has pursued this rational policy with Lawrence, who responds energetically, showing himself to be the son of his father in tenacity and force of purpose.

Mr Knapp is public spirited, and takes great pride in Oregon and Portland, in the people and the institutions of the state and city, admiring them for their solid character. Though by no means lacking in enterprise, he is conservative. Mentally he is well balanced, clear headed, of strong will, and excellent judgment of men and things, and withal possessing a large measure of common sense; morally he is a man whose integrity and honor are unimpeachable. His character, in which alone genuine nobility is expressed, is revealed in his acts. Kind and considerate of others, a prince in courtesy, he is still independent in his thinking, and inflexible in whatever course he believes to be right and proper. He is a happy conversationalist, tells a good story, and enjoys a glass of wine and a fine cigar. He is tall and erect, admirably proportioned, and of easy, graceful carriage. His personal appearance is altogether genteel and distinguished. With large hazel eyes, dark complexion, iron-gray hair and mustache, his face, as seen in the accompanying portrait, expresses refinement, charity, self-control, and clearness of vision.

CHAPTER XXII.

AGRICULTURE—NEVADA AND UTAH.

Subordination of Farming to Mining—A So-called Desert—Climate—Rainfall—Configuration, Water-courses and Sinks—Irrigation—Artesian Wells—Numerous Fertile Valleys—Soil and Products—Markets—Railroad Discrimination and Monopoly—Stock-raising—Bunch-grass—Cattle, Horses, Hogs, Angora Goats, Camels, and Ostriches—Agricultural Communities in Utah—Irrigation—Crickets and Grasshoppers—Cereals and Fruits—Cotton, Flax, and Silk—Markets and Monopoly—Stock-raising and Dairy-farming.

As in most mountainous mining states, agriculture in Nevada held for a time a subordinate position. It sprang into being from the requirements of traffic and mining, and was sustained by them until, with its growing strength, it aspired to become a leading industry.

The country is not inviting to cultivators of the soil, yet farmers here have sometimes been eminently successful. Early emigrants hastened through to reach the fairer coast provinces; but, as in Utah, appearances are somewhat deceptive. The greater part of the Rocky mountain slopes were once decried as deserts, though a number of rich territories have been carved therefrom. The seemingly arid surface needs only water to make it productive.

The air is dry, and the atmosphere so light as to quickly absorb moisture, so that the modifying effects of the Pacific currents are little felt. In the deep valleys the fall of snow in winter is small and the temperature generally mild. The hot summer is dry, the temperature rising to 90°, and even 100°, and falling at night only to 70°. Nevertheless, it is tempered by more rain than falls in California, and by many a thunderstorm, leaving the winter also less severe. The approach of the latter is announced by dark clouds, which move slowly over the plains, to hover round the mountain peaks, the remnants of the autumnal whirlwinds. Spring comes in March, often with snow and cold, beating rains. The average rainfall in the so-called great basin is twenty inches, four-tenths of which comes in the spring, one-tenth in summer, three-tenths in autumn, and two-tenths during winter.

Divided as the country is into a series of basins, rivers flow in different directions, fed largely by the mountain snows. They mostly terminate in lakes devoid of outlet, or disappear in the sinks and sands. If not large, they are numerous and serviceable, save in the desert southwest, bordered by the Colorado. In the north the foremost is the stream discovered by the Hudson's Bay company's trader, Peter Skeen Ogden, and known for a time by the name of his Indian wife, Mary, though Frémont improperly rechristened it in honor of Humboldt. It is three hundred miles in length, and forms a famous though unattractive landmark along the route of westward-marching empire. The Carson, Truckee, Walker, Quin, Reese, Amargoso, and Vírgen are all considerable rivers, varying in width and length with the season, and not unfrequently marked by cañons and falls. Nearly all except the first three run north and south.

The Mormons, who settled in Carson valley as early as 1849, applied here their irrigation system, and taught its value to their gentile successors. The necessity of ditches for mining purposes rendered their extension to farming easy and less costly. Nevertheless a number of special irrigation canals have been constructed, the largest being the Humboldt, projected in 1862 by J. Giuacca, the Italian founder of the town of Winnemucca. Aided by a company formed in San Francisco, he opened the first twenty-eight miles at an expense of $100,000.

There is room and means in the streams for a wide dissemination of the system, but there are also vast regions which cannot be reached by rivers. Here artesian wells have been tried, with flattering success, so much so that the legislature in 1879 offered a bounty of two dollars per foot for sinking flowing wells in any part of the state below a depth of five hundred feet. The first flowing well is ascribed to Nevers' farm, and was bored in 1869. At Battle mountain is one which rises nine feet above the surface, and is used for working pumping machinery. An adjoining well yields 50,000 gallons a day. Round Eureka pumping is necessary, but one well yields 100,000 gallons daily. It is urged that congress should make more liberal donations than the quarter-section of land so far tendered.

Although large tracts are destitute of vegetation, the flora is much more varied than appears at first sight, owing to the obtrusiveness of the sagebrush and greasewood. So far 1,200 plants have been catalogued. At times the hills and plains are brilliant with flowering herbage. In the valleys bloom red and black currants, service-berries, and the blue mountain grape, together with pine-nuts and gooseberries. In the swamps about Humboldt and Carson lakes grows a kind of wild sugar-cane, and on some of the hills flax and tobacco, while the south exhibits cactus and mezquite. The streams are bordered by cottonwood, birch, willow, and wild cherry, with a mixture of wild vines, rose, and berry bushes. Everywhere abounds the artemisia, or wild sage, giving its name as a sobriquet to the state. Next predominates the green greasewood, and the aromatic lynogris, the favorite food of the rabbit. The mountains are fringed with pine, spruce, and other trees. Along the Colorado are low, stunted pine, on river banks so high that they seemed to the first explorers to rise into the clouds. These productions indicate by no means the possibilities of the region, which are abundant, and will one day prove themselves capable of supporting a flourishing population.

In this misnamed basin and desert are numerous fertile valleys, ranging from Carson, less than 4,000 feet above the sea, to Steptoe, in an altitude of more than 6,000 feet, yet adapted to cereals. These oases skirt the foothills, like the streams; beyond, the water disappears in the thirsty plains, yet even these can to a great extent be reclaimed, and transformed into fertile fields. The alkali, which in places covers the ground like heavy frost, bordering the bronzed surface, can be overcome by the proper application of water.

The state contains nearly 72,000,000 acres, of which 43,000,000 are supposed to be available land. Of the 18,000,000 acres surveyed by 1877 nearly 11,000,000 were available. The state has been allowed to select, for its grants toward schools and other objects, from the more valuable sections.

A surveyor-general was assigned to Nevada in 1861, in the person of J. W. North, but soon afterward the territory was attached as a surveying district, at one time to Colorado, at another to California, and not until 1866 was a special United States surveyor-general again appointed. Meanwhile S. H. Marlette had been elected under the state constitution to hold office, and was reëlected.

In many quarters the soil is highly productive. Four tons of alfalfa to the acre, in two crops, have been obtained in some locations, as in Mason valley; blue-joint grass yields half that amount. Of wheat, 45 bushels were reaped to the acre; others report from 30 to 60 bushels. In Elko county the average crops were 30 bushels of wheat, 60 of barley, and 100 of potatoes to the acre.

The products range from every variety of temperate plants to many semi-tropic species. Hops do well in Washoe county. Here as well as in Humboldt fruit is largely cultivated, including some vines. The soil and climate of Muddy creek, tributary to Rio Vírgen, has been found adapted for cotton. Already in 1873 some thirty acres were under cultivation, and the Mormons have since taken steps to extend the acreage, favored by cotton factories in Utah.

Unfortunately there are few such encouraging features, and nearly all the agricultural product depends on local demand, railroad charges being so exorbitant as to place an embargo upon exportation. This accounts in part for the small proportion of cultivated areas and for the lack of enterprise so noticeable in many directions. The mines, however, with their thousands of workers present no inconsiderable market. During the decade following 1849 only a few farms were opened to supply the trading stations, and in 1860 they numbered less than a hundred; but afterward they increased rapidly; to 1,000 within a decade, and by 1879 to nearly 1,500, some containing as much as 1,000 acres. This yield in cereals was only 783 bushels in 1880; yet the wealth per capita stood higher than in the farming state of Oregon. The report for 1884 enumerated eighteen gristmills, grinding over 22,000 barrels of flour, besides a larger quantity of corn and barley.

The most lucrative branch is stock-raising, which is better able to find markets in California, Idaho, and other territories. Some counties, like Roop and Humboldt, are almost entirely given over to this industry. So far about ten million acres are classified as grazing land, but a much larger part of the state is adapted for ranges. On the hills are two kinds of nutritious bunch-grass, the coarse and the fine, the former being found in the lower levels in smaller and more scattered branches. Washoe valley and mountain meadow are natural meadows, the latter a walled plateau watered by melted snow. Clover is sometimes found as well as rye-grass, and on the northern creeks attains at times a height of six feet; blue-joint and red-top are also counted. Ducks, curlews, and pelicans frequent the lakes, a few species of quadrupeds seek subsistence along the slopes and plains.

Upon these natural pastures the best of beef is raised, superior to that produced in the eastern states. The inferior Spanish stock was at first introduced, but graded in due time by the cattle of emigrants, and subsequently by specially imported animals. In 1886 about half the herds were thoroughbred. Daniel Murphy had 60,000 acres of land in Nevada, from which he shipped 6,000 head of cattle yearly. He was a California pioneer of 1844, and died at Elko in 1882. Dr Glenn and his partners owned 30,000 head; Todhunter and Devine claimed 25,000, and shipped 6,000 annually from their ranges of 100,000 acres; Riley and Hardin had 30,000 head and sent thirty carloads of cattle monthly to California; E. W. Crutcher's range covered a section of sixty-one by forty-two miles, upon which pastured 16,000 head. Altogether there were in 1885 some 500 cattle-raisers in the state, owning about 700,000 head of cattle.

The practice of driving stock over the mountains from California was in vogue in the middle of the fifties, G. W. Huffaker being one of the earliest to introduce cattle from Salt Lake City to the Truckee meadows. The Comstock silver excitement brought liberal returns to him and many others. Cattle were first wintered on the Humboldt in 1859-60. Ten years later large herds were driven in from Texas to stock the Nevada ranges So prominent is the industry that the burden of constructing fences falls upon the tillers of the soil. The state is also proud of its horses, especially those for heavy draught, and fine stock has been brought from abroad further to increase their reputation.

The number of sheep in 1884 was 300,000. Four years previously Battle mountain shipped 200,000 pounds of wool, Winnemucca 140,000, and Paradise valley 84,000, a decline from preceding years, with a still further abatement in 1882. The hardy Angora goats thrive well on sage-brush land, a circumstance which has led to a rapid increase in their number, from a score in 1869 to bands of several thousand each within a decade. Both their wool and skin find a good market in California. Hogs have proved remunerative in some districts, the largest herd, of 400, belonging in 1882 to H. C. Emmons at the Humboldt sink, who recently began pork-packing.

Some of the camels rejected from the government service in California found their way to Nevada, and for a time were used to carry salt from Esmeralda county to the Washoe mines; but the accidents they caused by frightening horses brought forth a law against their appearance in highways. Ostriches were introduced in the southwest portion of the state, by T. Glancy, who expected to profit by their plumage. Poultry is gaining favor among farmers. One of the products in which Washoe has excelled is honey, nearly 40,000 pounds being obtained there in 1884.

Douglas and Washoe are important agricultural counties, from which the requirements of the rugged Storey district are largely supplied. Douglas and Lyon counties each possessed in 1885 over 200 miles of irrigation ditches, while Humboldt and Elko claimed more than 400 miles each. The last two in 1884 owned 28,000 and 70,000 head of cattle, respectively; Elko having besides 17,000 horses. The first farming in eastern Nevada was started in 1861 by the mail contractors, in Ruby valley, in order to provide fodder and other supplies. In Humboldt the crops reached 86,000 bushels of wheat, 125,000 bushels of barley and 8,000 fruit trees. Lander county raised 43,000 bushels of barley and 62,000 of potatoes. Eureka produced a large quantity of butter. With increased railway competition will come cheaper rates, and consequently additional markets to encourage the farmer to wider operations and to new experiments.

With greatly inferior advantages and resources, Utah has far outstripped Nevada in agricultural development. The majority of Mormons from the United States were farmers, who, imbued with the earnestness of their faith, provided as husbandmen the means for sustaining the community. A strong illustration of their self-reliance was given during the exodus from Nauvoo, when they halted midway on their journey to Utah to plant fields and gather supplies for the march. The occupation of the new territory was determined primarily by the quality of soil and water, the southern part of the section selected being more fertile, and attracting in the end more settlements.

As immigrants continued to arrive, sites for towns were selected, and parties formed by voluntary enrolment, with a due apportionment of artisans, to go forth and subjugate the soil in those vicinities. Each party was entrusted to an experienced elder, whose duty it was to maintain order, guide his flock to its destination, distribute lots and lands, and supervise the opening of farms and the construction of houses. The party should possess, in addition to what each family chose to bring, sufficient supplies or means to sustain itself until the first harvest, the necessary seed, horses, oxen, cows, ploughs, and other implements, and some arms for hunting and defence. Such of these as the settlers were unable themselves to provide, the church authorities advanced as a loan. Thus equipped and guided the settlement permitted no privation to prevent its growth and prosperity. What a contrast was this colonization to that of the egotistical and lazy Mexicans!

The first survey of the soil was not encouraging. It had a dry, hard surface, covered with alkaline matter, frequently in such abundance as to kill vegetation, although forming otherwise a not objectionable admixture when properly watered. Water was not abundant, however, at the first. The rainfall ranges only between seven and sixteen inches for different districts, save round the great lake, which attracts more moisture, though increasing cultivation appears to be exerting a favorable influence. The remedy lay in irrigation, which, indeed, is required by two-thirds of the farming land. There are few parts of the world where artificial watering has been applied more systematically, or with better results. It was used by the pioneer band, and by 1865 more than 270 canals had been constructed, at a cost of $1,700,000, extending over 1,000 miles, and covering 150,000 acres. Other canals were in progress, to the value of nearly $1,000,000, and every year more of the waste water from the melting snows is secured to reclaim the land and repay the outlay. Nevertheless, there is not enough to supply all the desirable tracts.

Among other drawbacks with which the settlers have to contend, and less successfully, are occasional overflows from denuded slopes, and sand storms which destroy the crop. The altitude of Utah gives wide latitude to night frosts, and renders some of the plateaus unfit for cultivation. Crickets and grasshoppers injure crops more or less, and at not infrequent intervals they commit great havoc, as in 1848, 1855–6, and subsequently. In some parts gulls have come to the rescue, and devoured the insects, and thus assisted the settlers in saving their fields. The delay of the government in settling Indian claims has deferred the acquisition of titles to land.

One effect of irrigation has been to reduce the size of farms. They numbered in 1880 more than 9,400, with an acreage of 650,000, of which two-thirds were under cultivation, the total value, including improvements, being placed at $14,000,000, with implements worth $950,000, and products $3,300,000. The land office reported by 1884 nearly 6,400 homestead entries, for 850,000 acres. It would appear also as if the labor required to cultivate the soil was so exacting as to leave little leisure for embellishing the home. The dwellings and other surroundings are generally so bare as to give no idea of comfort, and are in marked contrast to the garden-like aspect of many of the towns, notably Salt Lake City.

The cultivation of the soil in Utah began in the autumn of 1846. In 1849 there were raised 130,000 bushels of grain, chiefly wheat. In 1883, a year by no means favorable, 215,000 acres produced 1,600,000 bushels of wheat, 720,000 of oats, 300,000 of barley, 190,000 of corn, 800,000 of potatoes, and 215,000 tons of hay, the average yield of the four cereals being 20, 33, 25, and 16 bushels to the acre, respectively, although in Utah, the leading farming county, the average for oats rose to 58 bushels, and in Millard wheat was reported as yielding 57 bushels to the acre. Fall wheat requires only one watering; corn does not thrive so well. Temperate fruits attain a good size and excellent flavor. In 1883 the orchard products were estimated at $157,000, including fully 90 varieties of apples, which yielded 90 bushels to the acre, while peaches rose to 120 and plums to 165 bushels. In the southern districts a few hundred acres are in vines, which yield three tons to the acre.

The attempt to raise cotton has not proved profitable, but flax culture is sustained to a small extent, and sericulture promises to become a leading industry, judging from the strength and quality of the silk so far produced. In 1863 a scarf was made from the first silk raised at Centreville. Since then the Utah Silk association has taken steps to extend its culture, which will find favor and support among the proportionately numerous women and children.

Experiments in this and other directions have been fostered by state aid, and by the fairs of the Deseret Agricultural and Manufacturing association, with the attendant premiums. A great restriction on farming operations lies in the limitation to markets, for exportation by railway is too costly to be widely availed of, and the demand in adjoining mining regions is usually supplied by local producers. Wheat shipments made in 1878 through San Francisco were not encouraging. Orchards are mostly given over to hogs, for the shipment of dried fruit is insignificant.

The number of sheep is placed at more than a million. In 1870 they were mostly of New Mexican stock, but since then superior breeds have been introduced from California and the east, and now Utah wool sells at a higher rate than that of the neighboring states and territories, ranging between fifteen and twenty cents per pound, for an average clip of six pounds, with the prospect of greater improvement in quality and weight.

Within recent years Utah has become in a measure Americanized, the power of the church giving way before the incoming tide of business men and business prosperity. The crops have been large and fairly remunerative; live-stock has multiplied, sheep more than doubling in number, and with great improvement in breeds of cattle, sheep, and horses. The mormons are essentially a farming community, leaving to their gentile neighbors the control of mining and commerce. For both the outlook is most encouraging, with prospects such as a decade ago would have been deemed almost impossible.

CHAPTER XXIII.

LIFE OF CYRUS HALL McCORMICK.

Embodiment of the Industrial Idea of the Century—Building of a Character—Inventive Genius—Agricultural Machinery—The McCormick Reaper.

Honesty, industry, and a firm religious faith were the leading traits in the character of Cyrus Hall McCormick. Combined with a strong will, indomitable perseverance, and great tenacity of purpose, they made him one of those eminently useful men whose works are their perpetual monument. His memory is warm within the hearts of thousands who enjoy the fruits of his genius. By his own efforts alone, he arose from a comparatively lowly origin to fill one of the most prominent positions among the famous men of the United States, and added lustre to the name of the republic by the benefit he conferred upon mankind. His life, in many respects, is representative of the century, three fourths of which it spanned—a century which, above all others, has been distinguished for its revolutions, its material progress, and the extent and variety of its benefactions to man. His career well illustrates the harmony existing between great business success and extensive philanthropy; between the faculty which utilizes material forces and the faith which recognizes divine supremacy; between the self-reliance which commands men and the humility which is worshipful of God. He possessed in the highest degree those characteristics which raise men above the crowd and make them leaders. The people of two continents testify to his worth, and to the aid given by him to the progress of civilization; for his name is not less known and honored in crowded Europe than in the cities and villages of his native country. And it will ever stand high upon the roll of the honored of the nation.

Mr McCormick was a native of Virginia, that nursery of famous men. He was born on the 15th of February, 1809, at Walnut Grove, his father's homestead, midway between Lexington and Staunton, in Rockbridge county. He was the eldest of eight children, and in his youth led the life of a farmer's boy, rising with the sun and retiring with its setting, thus at an early age acquiring those habits of industry and self-reliance which made him eventually what he was. His parents, Robert and Mary Ann Hall McCormick, were of Scotch-Irish descent. By their energy and strength of character they had gained a position of influence among the people of the valley in which Walnut Grove was situated. They were in easy circumstances, and had a happy home, where the children were taught to share its responsibilities, and were permitted to enjoy a full measure of its pleasures. Religious faith and intense reverence for the teachings of divine truth were prominent factors in the home life of Cyrus, which greatly assisted in moulding his character into that strong embodiment of moral and intellectual superiority of which he afterward became an example. The inherent sense of right and duty developed by this training made him strongly hostile to false pretensions of any description. Possessing uprightness of character himself, he could tolerate no crookedness or affectation in others.

His early schooling was obtained like that of most farmers' boys of the period. He attended the "Old Field school" near his home in the winter; in summer he often began at five o'clock in the morning his work in the field. On Sunday he entered earnestly into the services at the New Providence church, where he was a devout attendant. Here he learned those beautiful hymns of praise which were his comfort in after life, and his solace in his dying hours. Such a training developed all that was best in his youth, and caused him to mature into a deep-thinking man—a man of pure and simple life, and free from all trace of ostentation.

Though his boyhood days were spent among his father's fields, he early developed a liking for mechanics. He spent much time in the shops on the farm, and during his leisure hours could be found with tools in his hand fashioning some useful instrument from wood or iron. From his father he inherited certain inventive qualities of mind, which, combined with the faculty for practical affairs with which his mother had endowed him, enabled him to put to practical uses the ideas which the favorable conditions of his surroundings awoke in him. Thus, when only fifteen years old, at which time he swung the scythe in line with his father's workmen in the harvest field, he made a grain cradle for his own use, which not only lightened his labor, but enabled him, though a youth, to keep pace with the most sturdy of the workmen. The next effort of his inventive genius was an improvement in agricultural machinery. He constructed a hillside plough, which threw alternate furrows on the lower side, being thus either a right-hand or a left-hand plough. It was patented in 1831. It was superseded by a superior invention, patented in 1833, which was called the self-sharpening horizontal plough. It did excellent work on hilly ground, being simple, strong, and durable. It was the first perfect self-sharpening plough ever invented, and but for the fact that the inventor's mind was later turned in other channels, he believed that he could have brought it into more general use. The possibility of cutting grain by machinery engaged the attention of the young inventor for a long time. He was convinced of the practicability of the proposition, and for a number of years endeavored to evolve a machine by which that fact could be satisfactorily demonstrated.

His father, who had also been an inventor of farming implements and machines of some note, such as a hemp-break and a water-wheel, made a reaper in 1816, which, however, had shown its impracticability when tested, and had been abandoned. As it lay near the workshop, Cyrus had often studied its construction. He concluded that the principles on which it was built were radically wrong. His father had used upright revolving cylinders, provided at their bases with knives like sickles. After long consideration and many experiments, the young man became convinced that the true principle was to devise a machine which should operate on the grain as a mass, with a horizontal reciprocating blade. His ideas were entirely original. He knew of no experiments in the making of grain-cutting machinery except his father's, and he had never been far enough from home to get other ideas on the subject from the outside world. Convinced that his was the true solution of the problem, he earnestly labored to carry out his ideas in a machine. His father discouraged him, believing that the son's time would be wasted, as his had been.

In after years, Mr McCormick told of the moment when, like a revelation from heaven, the magnificent possibilities of his invention came upon him. It was on a bright summer's day, when he was riding from the homestead to a foundry in the mountains, carrying the pattern of the mould-board of his plough to be cast in iron. The way led across a stream, in the midst of which his horse stopped to drink, The mind of the young man was, as usual, filled with the difficulties of the reaper, then only in embryo. Stopping in mid-stream, Cyrus' eye fell upon the landscape. Before him, rolling far away to the horizon, lay a field of waving grain, upon which the sunlight glittered, lighting it up as with a golden shower. Instantly there came upon him the idea of the vast agricultural possibilities of the country, and of the fortune and fame which awaited him who would materially aid in their development. His dream was but of brief duration, however, for it faded away before the hard fact that his ideas had not yet taken practical form. At once then he determined to devote himself to his invention.

Slowly his ideas matured. He built on the principle that ripe grain, especially when tangled, could be successfully harvested only in a body with a cutting machine which had no separations. He found that the necessary motion to cut and save the grain could be obtained by a crank attached to the end of the reciprocating blade. This principle, originally applied by Mr McCormick, is the foundation of all reaping-machines. His ideas found practical application after several months of hard work, during which, in his father's shops, Cyrus himself made every portion, both in wood and iron, of the reaper which he constructed. Its three great features were a vibrating cutting-blade; a reel to bring the grain within reach of the blade, and a platform to receive the falling grain. In the latter part of 1831, this machine, drawn by horses placed at the stubble side of the swath, was tested in a field of six acres of oats belonging to John Steele, within a mile of Walnut Grove. It was an astonishing success, far exceeding in its work the hopes of its inventor, and the expectations of the neighboring farmers who had gathered to witness the test. They were satisfied that the problem of cutting standing grain by machinery had been solved.

The original reaper was a crude affair compared with that of to-day. All the cog-wheels were of wood, and it showed the apprentice hand of its constructor. There was no place upon it for either the driver or the raker. The former rode on the rear horse, and the latter followed the machine on foot, raking the grain from it as best he could. The father was as enthusiastic as the son at the success of the machine; and both to Robert and Cyrus McCormick the world owes much, for but for the conception of a reaping-machine by the former, the latter would probably not have turned his mind to the system of which he was the inventor.

In the season following its first trial, the reaper cut fifty acres of wheat, demonstrating its success beyond the peradventure of a doubt. The first patent on it was granted in 1834, and the patience displayed by the inventor in perfecting his machine before putting it on the market is one of the most remarkable and noteworthy facts in connection with the development of his great enterprise. For nine years after the memorable test of 1831, he kept hard at work, experimenting, changing, and so improving the reaper as to assure its unqualified success when presented to the public. In a letter to the commissioner of patents on file in the patent office at Washington, Mr McCormick said:

"From the experiment of 1831 until the harvest of 1840, I did not sell a single reaper, although during that time I had many exhibitions of it; for experience proved to me that it was best for the public as well as for myself that no sales were made, as defects presented themselves which would render the reaper unprofitable in other hands. Many improvements were found necessary, requiring a great deal of thought and study. I was sometimes flattered, at other times discouraged, and at all times deemed it best not to attempt the sale of machines until satisfied that the reaper would succeed."

Shortly after the success of his great invention, Mr McCormick engaged in a partnership for the smelting of iron ore, believing that it would offer a broader field for the exercise of his ambition, and that it promised larger profits than the manufacture of the reaper. But the panic of 1837, which greatly reduced the price of iron, ruined his business, and he could maintain the honor of his name only by sacrificing all his resources to liquidate his liabilities. This, I need hardly say, he did not hesitate to do, losing even the farm which his father had given him, but coming out of the ruin of his fallen firm with an unsullied reputation as an honest and upright man. He now devoted himself to his invention. For several years Cyrus, his father, and the inventor's brothers, William and Leander, manufactured the reapers in the primitive workshops on the old homestead in Virginia, turning out from two to fifty machines a year, which were all made by hand under great disadvantages. The sickles were made forty miles away, and as there were no railroads and but few steamboats in those days, the six-foot blades had to be transported on horseback.

The McCormicks were tireless workers, however, and sustained by their unremitting energy, kept on manufacturing and ipmroving the reapers and finding markets for them. This latter part of the business was by no means the least difficult. The first consignment, sent to the western prairies in 1844, was taken in wagons from the workshops at Walnut Grove to Richmond, Virginia, a distance of 120 miles, was thence shipped to New Orleans, and up the Mississippi and Ohio rivers, to Cincinnati.

Appreciating the possibilities of the great west, Mr McCormick went to Cincinnati in 1845, and there prepared to manufacture his reapers. In the same year he made a number of valuable improvements on the machines, and obtained a second patent. By this time the McCormick reaper was widely and favorably known, and demands for it came pouring into the factory. In the year of his removal to Cincinnati, he arranged with a firm at Brockport, New York, to make his machines on a royalty, with a view to their introduction into the then great wheat-fields of central

New York. He continued making improvements on the reaper, and in 1847 and 1848 obtained additional patents. With the keen foresight for which he was noted, Mr McCormick at a very early date appreciated the advantages of the position of Chicago as the commercial centre of the immense agricultural districts of the great northwest, and he therefore moved to that city in 1847. In the following year seven hundred of his reapers were made and sold. In 1849 the sales amounted to over fifteen hundred. Since that time, hundreds of thousands have been manufactured and sold, and they are now known the world over. The success of the reaper at home being assured, Mr McCormick spent some time abroad, bringing his machine to the notice of European agriculturists. In 1850, his two brothers, William S. and Leander J., became associated with him at Chicago. In the following year he attended the world's fair at London, and there introduced the reaper to the English. Though not friendless, he was unknown, and his statements regarding the work of the reaper were received with distrust. Even so conservative a paper as the London *Times* characterized it as "a cross between an Astley chariot, a wheelbarrow, and a flying-machine." But Mr McCormick had overcome too many difficulties to be disconcerted by the ridicule arising from ignorance, and he proceeded to demonstrate the truth of the claims which he made for his invention. When the reaper was tested in open field, and performed more than was claimed for it, the *Times* hastened to make amends, and announced that "the reaper was the most valuable contribution to the exhibition, and was of sufficient value alone to pay the whole expense of the exposition."

Mr McCormick's path now became a brighter one, for honors began to shower upon him. After repeated tests, during all of which the reaper showed its superiority over every other grain-cutting machine, the great council medal was awarded its inventor for "the originality and value of the reaper." He now became famous; but notwithstanding the great success he had attained, the soundness of his character carried him unchanged through the crucible test of public favor, and he remained the same modest, unostentatious man as ever before and since. His practical business sense now stood him in good stead, and he took advantage of the opportunities presented to advance his affairs, and to widen his knowlege by contact with the older world of Europe. He was one of the few men of inventive genius, who, with that genius, combined the knowledge and ability to carry on a large business. He manufactured his machines in partnership with his two brothers.

He exhibited the reaper at the universal exposition in Paris in 1855, and there was awarded the grand prize for his invention, which was pronounced the "type and pattern of all other reaping-machines of the present day." Some idea of the impetus given not only to agriculture but also to commerce, by the advent of Mr McCormick's invention, may be gained by quoting the remarks of Reverdy Johnson, who, in an argument before the commissioner of patents over thirty years ago, said: "The McCormick reaper has already contributed an annual income to the whole country of over $55,000,000, which must increase through all time." About the same time, 1859, it was also justly remarked by William H. Seward that, "owing to Mr McCormick's invention, the line of civilization moves westward thirty miles each year." So universally recognized were the benefits thus given to agriculture, and so great were the demands from all quarters for the reaper, that in 1861 D. P. Holloway, then commissioner of patents, refused to extend the original patent upon it, which had expired, on the ground "that the reaper was of too great value to the public to be controlled by any individual." In his decision, declining to extend the patents, Mr Holloway said: "Cyrus H. McCormick is an inventor whose fame, while he is yet living, has spread through the world. His genius has done honor to his own country, and has been the admiration of foreign nations, and he will live in the grateful recollection of mankind as long as the reaping-machine is employed in gathering the harvest."

When forced by the commissioner of patents to meet competition in the manufacture of his own invention, Mr McCormick set to work with all the energy which distinguished his life, and had the satisfaction of distancing all his rivals in the race for supremacy. He continued to advance despite opposition, and owing to the improvements which he added to the reaper, the product of the McCormick factories was never displaced from its position in the lead. Notwithstanding the almost insurmountable obstacles which surrounded him—isolation from centres of communication, ignorant prejudices of the laboring classes, the refusal of congress to grant him a just and deserved patent protection, and the combined opposition of all other interests similar to his own—his indomitable will, invincible courage, and unfaltering confidence in the value of his invention carried him through successfully, and year by year advanced him in the path of progress, with the plaudits of the nation ringing round him. In 1862, the reaper was awarded the highest prize at the world's fair in London, and a silver medal, the highest prize, at a field trial in Lancashire, England. It won the gold medal at Hamburg in 1863, and in 1867, when Mr McCormick again exhibited the reaper in Paris, he received the grand prize, and was decorated by Napoleon III. with the cross of the legion of honor for his valuable and successful inventions. Two grand gold medals were also awarded him in 1873. At the centennial exposition in Philadelphia, he won the highest prize, two bronze medals. In 1878, after a competitive trial of self-wiring harvesting machines at Bristol, the Royal Agricultural society of England presented him with its grand gold medal. In 1878 he went to Paris for the third time, and was awarded a grand prize of the exposition for his reaping and self-binding machine. During his visit, the rank of officer in the legion of honor was conferred upon him, and he was elected a corresponding member of the French academy of sciences, "as having done more for the cause of agriculture than any other living man." By this eminent body of scientists he was thus recognized as a benefactor of the human race, an action which strongly corroborated the opinion of Seward and of all Mr Seward's countrymen.

The great Chicago fire of 1871 seriously crippled Mr McCormick's resources, entirely destroying his factories just as they were beginning to manufacture the machines for the coming harvest. Again his resolute character was to him a source of strength, and against the wishes of many friends, who advised him to retire from business, he put his broad shoulder to the wheel, and soon the reaper works, which had been destroyed by the conflagration, reappeared. phœnix-like they had gained new life from the flames, and their capacity was even greater than before. "I know of no better place for a man to die than in the harness," said Mr McCormick, who was one of the first to give hope to the dismayed people of the stricken city, entering with all the zealous ardor which only such a nature could possess, into the work of reëstablishing his business, soon with the satisfaction of again seeing it on an excellent footing. The reapers continued to win prizes and honors wherever shown. In 1879 they were awarded the highest prize at the international exhibition at Sydney, and in 1880 he received the highest award, a gold medal, for every variety of harvesting machinery at the world's fair at Melbourne. In 1881 the McCormick twine-binder was awarded the gold medal, as "the most perfect twine-binder," by the Royal Agricultural society of England, after competition with all the prominent machines of Great Britain and America. The McCormick self-binding harvester was awarded the first prize, a gold medal, at the international exposition at Buda Pesth, in 1885. The new steel machine was awarded the first prize after a field trial of binders at Nantes, in July 1885. At a subsequent trial at Troyes it won the gold medal. During 1885 the Italian government bought a number of the reapers for use in the development of the agricultural resources of Italy.

Mr McCormick always sold his machines on reasonable terms, with a guaranty that they would do what was claimed for them, and even allowed purchasers to realize the benefits of their purchases by using the reapers before paying for them. This liberal manner of business has always been characteristic of the management of the McCormick firm, and it is now one of the main factors in the maintenance of the great popularity of the immense reaper-works at Chicago.

A study of the life of the great inventor would not be complete without a reference to the great business which he founded. The reaper-works of the McCormick Harvesting Machine company, situated at Chicago, are the largest in the world. The buildings and adjacent grounds devoted exclusively to the business cover 24 acres. The buildings in which the reapers are built are four stories high, and cover an area of 565 feet front by 740 deep, giving over 30 acres of floor space for manufacturing purposes. To the rear is the Chicago river, while railroad tracks traverse the grounds in every direction. In the foundry, 50 or 60 tons of iron are daily converted into castings. Over 1,500 men are employed in the works, whence reapers are sent to every civilized country on the globe. The yearly output in 1891 was about 100,000 machines, and there was not a day throughout the year that a McCormick reaper was not at work in some harvest field or meadow in some quarter of the earth. In all the countries of Europe and of the two Americas, in Asia, north and south Africa, in the Australian colonies, in Egypt, and indeed wherever harvests are gathered, there may be found one of the wonderful machines of the Virginia farmer's boy. To work the reapers now in use requires an army of half a million men, and twice as many horses. The machine has made farming profitable on a scale never dreamed of in the older days when the scythe was swung. Here is indeed a boon to mankind which ranks our Virginia farmer's boy among the benefactors of his race.

And now from the business career of Mr McCormick let us turn to his private life. In 1858 he was married to Miss Nettie Fowler, a daughter of Melzar Fowler, of Jefferson county, New York, and niece of Judge E. G. Merick of Detroit. The union was of the happiest, and the more so as it was blessed by a family of four sons and three daughters, two of whom he had the misfortune to lose in infancy. Possessed of all Christian graces, and especially loved for that which the apostle declared to be the greatest of all the graces, the wife was in truth a consort, one in whom he who takes to heart finds a blessing greater than any that can be bestowed even by the giver of all life's blessings.

For his countless deeds of charity Mr McCormick was no less widely esteemed. Among them I will only mention a gift in the year following his marriage. At a meeting of the general assembly of the presbyterian church in Indianapolis, Mr McCormick proposed to endow the chair of the presbyterian theological seminary of the northwest, provided the seminary was located at Chicago, offering $100,000 to found it in his favorite city. In all the intricacies of his vast and increasing business, he had never forgotten the teachings of his faith, nor the lessons he had learned at the family fireside at Walnut Grove in old Virginia. With the sagacity which ever marked him, he foresaw the development of the great northwest, and appreciated the need of religious thought and example. He gave thus liberally in the cause of christianity to promote the welfare of the entire country, without regard to sectional differences. This act was proof of the highest qualities. The seminary was founded at Chicago, and ever since it admitted the first body of students has been a power for good. Its influence in promoting the cause of christianity throughout the great northwest has been of incalculable value. Before his death Mr McCormick presented the seminary with $400,000, all in the cause of truth and religion.

His donations to the seminary were by no means his only aids to religious progress. In 1872, at the solicitation of many friends, he purchased *The Interior*, a presbyterian paper published in Chicago, and one struggling with financial difficulties. To foster union between the old and new schools; to aid in harmonizing the presbyterian church in the north and south; to advance the interests of the theological seminary, and to promote the welfare of the denomination generally in the great northwest, were among the objects he held dear. He used *The Interior* to effect these purposes, and soon placed the paper upon such a foundation that, as one remarked who appreciated its value, "it has grown to be a mighty voice, expressing the convictions, the aspirations, and hopes of a great church."

Mr McCormick also contributed liberally to the colleges and universities of his native state, to Washington and Lee university at Lexington, Virginia, and to Union Theological seminary at Hampden, Sydney. Throughout his life he had a warm place in his heart for Virginia, and was ever loyal to her interests.

Robert H. Parkinson, of Cincinnati, speaks of one of the latest interviews he had with Mr McCormick: "I want to tell you what a touching and profound impression I brought away from the interview I had with him not many days before he passed away. Though struggling with the infirmities of age, he took on a kind of majesty which belongs alone to that combination of great mental and moral strength, and he surprised me by the power with which he grappled the matters under discussion, and the strong personality before which obstacles went down as swiftly and inevitably as grain before the knife of his machine. I shall continue to treasure that interview in my memory with grateful appreciation, hallowed by the feeling that his luminous discourse was in some sense a valedictory to business affairs, spoken from the threshold of eternity. I think myself fortunate in having had this glimpse of him, and in being able to remember with so much personal association a life so complete in its achievements, so far-reaching in its impress, alike from the material, moral, and religious progress of the country, and so thoroughly successful and beneficial in every department of activity and influence which it entered."

And thus said one who assisted at his funeral services: "Others have already spoken of the more public life and services of Mr McCormick. Let it be mine rather to speak of those more personal characteristics which were the controlling principles of his life; the things which gave to the man his marked individuality and force; and the impressions to which I shall try to give expression are those gathered from the intimacies of personal friendship, from the experiences of that closer companionship which is born of sympathetic association. There are certain traits of character which Mr McCormick possessed in an eminent degree upon which I need not enlarge, for they are known and read of all men. It needs not that I should tell any with whom he came in contact of his unswerving integrity, of his unswerving tenacity of purpose, of his strength of will, and of his untiring perseverance. And yet these are qualities that are liable to be misapprehended, and the man who possesses them is liable to be misjudged. The unthinking world, which knows only what it sees, and which judges a man's life by what appears on the surface, might attribute these traits of character to pride of will or obstinacy of disposition, and in some men it may be so. But having been associated with Mr McCormick in times of trial, I can speak from personal knowledge; and justice to him demands that I should speak it here, that the substratum of his character was formed by an underlying principle, deeper, broader, grander, sublimer far than any of those which I have enumerated. That which gave intensity to his purpose, strength to his will, and nerved him for perseverance that never failed, was his supreme regard for justice, his worshipful reverence for the true and the right. The thoroughness of his conviction that justice must be done, that right must be maintained, made him insensible to reproach and impatient of delay. I do not wonder that his character was strong, nor that his purpose was invincible, nor that his plans were crowned with an ultimate and signal success; for where conviction of right is the motive power, and the attainment of justice the end in view, with faith in God there is no such word as fail."

In closing this brief sketch of a noble and manly life, I can only say of one who, after much suffering, entered, we may hope and believe, the mansion prepared for him, as for all who do right before God and man,—

"Life is perfected in death."

CHAPTER XXIV.

AGRICULTURE—IDAHO, MONTANA, AND WYOMING.

Idaho a Fine Agricultural as well as Mineral Country—Primeval Pastures and Natural Wealth—Prolific Soils and Rich Grasses—Irrigation—Horticulture, Pomology, and Viticulture—Cattle-Raising—Natural Grasses and Native Animals of Montana—Stock-raising—Transportation and Markets—Effect of Railways and Gold-mining—Grasshoppers—Rodeos—Horses and Sheep—The Soil of Wyoming—Pests—Irrigation—Cereals—Grazing Capabilities—Stock-raisers and Stock—Climate—Cattle Companies—Stock-growers' Association.

Idaho owes her development to the discovery of rich gold-fields; but with the great inrush of gold-hunters came, also, a certain percentage of the agricultural classes, who were not long in discovering that immense tracts of this territory were capable of supplying all the requirements of man. Few lands are more noted for the beauty and grandeur of their natural features, and few are more wealthy in resources. The occupation of it by so many native tribes is of itself proof of the latter assertion. Rivers and lakes abounding with fish of many varieties, and the haunts of countless myriads of water-fowl, afforded in certain seasons food for all, while in the mountains, plains, and valleys, deer, antelope, elk, and bear, the partridge, quail, and grouse could always be found by the hunter. Apart from these sources of supply, special localities were well provided with wild fruits and berries, and the camas root afforded diet of a farinaceous description.

The territory consists of a wedge-shaped plateau, averaging 4,700 feet in elevation. It is divided by several ranges into a dozen attractive valleys of from ten to eighty miles in length, and from one to twenty-five in width, heavily timbered and watered by several large rivers, with their tributary streams and a number of beautiful lakes. The largest valley, Camas Prairie, is in the centre, adjoined by two others, and the remainder are in the west. In the south extend the Snake river plains, embracing one-fourth of the entire area, and forming a part of the great sage-brush plains of Nevada, the southeastern corner being a continuation of the alkaline deserts of Utah. The total acreage is 55,000,000, of which fully one-half must be classed as grazing land, and perhaps one-fourth is capable of cultivation, although as yet only a small portion has been taken up by settlers.

Among the first to take up farming lands were Thompson and McClellan, who located their claim in Ada county in May 1863, and were followed, during the same year, by S. A. Snyder, T. McGrue, L. F. McHenry, Samuel Stewart, and others.

By 1880 the farms in this section numbered 256, with 62,800 acres under cultivation. The northern districts had the advantage of proximity to the more closely settled, with a readier outlet for products toward the sea; but as mining shaped the early unfolding of agriculture, so the existence of camps determined the growth of farms, as their chief or only markets. The industrious Mormons have entered the territory, particularly in the southwest, raising Oneida to the second rank as a farming county, with an improved acreage of 30,000, divided among 422 farms. Next comes Idaho along Salmon river, with an acreage of 22,800 and 155 farms; then Nez Percé, Lemhi, Washington, Bear Lake, Cassia, Boisé, and Owyhee, the last two with less than 5,000 acres each of improved land, while Alturas and Shoshone have less than 1,000. The total acreage of improved land, according to the tenth census, was 197,400, with 1,885 farms, valued at $2,800,000 and with productions worth $1,500,000.

Results might have been even better but for several obstacles, as the competition of adjoining region, favored by carriers and traders; the hostility of Indians and the vicissitudes of mining camps. Soil and other conditions were not of a nature to encourage the pioneers, and it required time and experience to remove their prejudice. The necessity for irrigation continues to be a serious objection in many quarters, chiefly from the difficulty of procuring and conveying water. In others special irrigation enterprises are preparing the way for settlers.

The dry season lasts from June to September or October, with an annual rainfall of barely fifteen inches south of Snake river and little more to the northward, Boisé City recording less than thirteen inches in 1885. The snowfall in the Snake basin does not exceed four inches, and remains only for a few days on the ground. The average temperature in winter is indeed not more than 34°, but the summers are warm.

These climatic conditions help to explain the dryness of the soil and the need for irrigation. Provided with water, the so-called desert land will bear the largest of grain crops and the finest of fruit, while the harvest is assured against failure as well as damage from many a pest. Experiments in Utah gave a clue to the methods of farming here required.

As early as 1864 William B. Hughes, associated with others, obtained a right to utilize the waters of the Boisé river, and incorporated the Vallisco Water company, water being conveyed by an aqueduct to Boisé City. Then W. D. Norris began the construction of an irrigating canal, and after his decease, in 1878, the work was completed by W. Ridenbaugh, and over 17,000 acres of desert land were reclaimed, yielding forty bushels of wheat to the acre, and enormous crops of vegetables. Horticulture, fruit, and viticulture also met with success. Of late many large irrigation projects have been undertaken, notably by the Idaho Mining and Irrigation Canal company, which aims to supply 600,000 acres between Boisé and Snake rivers; and by the Phyllis Canal company, which is seeking to apply ditches to nearly 400,000 acres west of Boisé City. A dozen others are completed or in contemplation, with a capacity of from 1,000 to 20,000 acres, some relying on reservoirs filled by creeks which fast dwindle from winter torrents to tiny rivulets. After a few seasons of irrigation the land needs comparatively little water and becomes unfailing in its productiveness.

Blights are little known, beyond occasional smut or rust in grain, and locusts have never penetrated into Idaho. The winter frosts are sometimes to be dreaded, and hence wheat is seldom sown in the autumn. The usual planting time is in February, which leaves the farmer free for other operations during the spring, while the dry summer and early autumn permit him safely to harvest the grain. This early seed requires less water, produces heavier crops, and ripens fully a fortnight before the later planted grain. The average yield of wheat is thirty bushels to the acre, of oats fifty-five, and of potatoes 250. The wheat is exceptionally heavy, large quantities averaging sixty-six pounds to the bushel.

All kinds of orchard fruits grow in abundance and possess a delicacy of flavor that is rapidly increasing the demand for them. Even where trees are overloaded with fruit the flavor remains unimpaired. Worms and dry-rot are hardly known. Canneries are responding to these favorable conditions by a large increase in capacity. In 1885 Boisé valley alone forwarded 1,500,000 pounds of fruit to Montana and elsewhere. A leading horticulturist is Thomas Davis, who planted 10,000 fruit trees on 75 acres, the product of which orchard in 1880 was 40,000 bushels of tree fruit and 500 of berries. L. F. Cartee, a coast pioneer of 1849 from Cincinnati, who in 1863 erected one of the first sawmills and quartz-mills in the territory, planted a vineyard at Boisé with no less than forty different varieties of grapes.

The territory is particularly adapted for stock-raising, owing to its large area of pasture land, which cannot well be brought under irrigation, and yet produces excellent feed for cattle. The mild climate obviates the necessity for shelter or fodder during winter, thus adding another favorable feature to this industry. The custom is to drive the herds to the mountains during summer, there to fatten on the rich bunch-grass, and when the early winter rains give warning of approaching snows, they are taken back to the warmer plains, notably the Snake river basin, now decked anew with nourishing verdure. Bunch-grass is here largely supplanted by the white sage, which grows to the height of about nine inches, bearing pinnated leaves covered with a soft, light-gray down. Cattle enjoy its sweet flavor, and on this pasture remain in good condition. The black sage spreading over the vast plains of the northwest, like small oak-tree shrubs, is only sparingly eaten. Of the grease-wood, merely the young shoots are consumed. Mingled with it is a poisonous weed, designated as wild parsnip, larkspur, or fools' parsley, which has often proved dangerous to the animals in early spring, and hastened their departure to the hills.

Each migration in spring and autumn is preceded by a rodeo, or round-up, attended by all the stockmen within a certain radius. This gathering for the recovery of stray cattle and for assuring the ownership of the younger stock by branding, is attended as elsewhere with sports and pastimes, including races, and the display of horsemanship. From one of these rodeo reports the census of 1880 estimates the cattle at less than 84,000. The figure seems too low, for five years later the calculations of several men concerned in the business assign more than 120,000 to the four central counties alone, the largest number, 50,000, being given to Alturas. The dairy produce in the census list was placed at 310,000 pounds of butter and 25,000 of cheese.

Sheep-raising promises to become still more important, favored as it is by a mild yet dry climate, and the absence of burs and other drawbacks. The fleece is both clean and heavy, that from the merino averaging six pounds and a half; so that with the addition of a ready market for the meat, this industry would appear to be profitable. The last federal census reports only 27,000 sheep, with a clip of 127,000 pounds, but in 1885 one firm alone claimed a clip of 100,000 pounds. The same census places the number of swine at 14,200, nearly all divided between Ada, Washington, and two other counties, where the camas and other wild roots provide suitable feed.

Of horses there were at that time over 24,000, sprung largely from the cayuse and other breeds left here by the early immigrants, and raised by the Indians. This small but wiry animal is now improved by crossing with superior stock from the east, which has added size, speed, and strength to its native hardihood and endurance. Some stockmen believe that the last qualities can be best insured by leaving the horses unrestrained in the hills until they are four years old. Others prefer to raise animals of about 1,200 pounds weight, which command the readiest sale in eastern markets, together with a proportion of the finer breeds which are the pride of every farm.

In Montana, also, next to her mineral resources, the native grasses constitute a primary element of wealth. In time it was observed that from the mountain tops to the margins of the low-lying rivers rich pasturage was abundant, where the mountain sheep, the buffalo, and wild black horse, besides numerous other animals, fed in countless numbers on a great variety of nutritious grasses. This was a sure indication that the country was admirably adapted to stock-raising. Long before the mines were discovered this business was carried on to some extent by Indian traders, who by exchanging cattle with immigrants to Oregon in the proportion of one to two, rapidly accumulated considerable herds. These multiplied by natural increase, and cattle-breeding assumed distinctive and large proportions.

The cultivation of the land had its origin from a different source. Without a surplus population or means of transport agriculture can only be developed to the extent of supplying food for individual families; but when migration sets in and peoples a new country, and subsistence has to be conveyed long distances, and at a heavy cost, the farmer is not slow to recognize his opportunity. Thus it was with Montana. At first productiveness was gauged by local demand, but when railroad communication was established exportation was found to be profitable. Indeed, three years before the railway reached the town of Helena the territory produced $3,000,000 worth of grain, hay, and vegetables.

Nor must it be supposed that these pioneers were an ignorant class of men, ploughing and delving for a livelihood. Many of them were highly educated, and understood thoroughly the course to be pursued in the developments of the resources of a new land. They had difficulties to contend with—Indian warfare, and the ruffianism of white men, who ran off their farming stock, and made it dangerous to step beyond the threshold of the log farm-house, but their courage and persistency made them a power in the land.

They have still to battle with a surviving pest, the grasshopper, which makes its appearance periodically, pursuing its destructive path for three or four consecutive years, and then disappearing for an equal space. The devastation, however, is not general, but local, different districts being visited in turn, and the farmer can afford to lose the occasional crop destroyed by such a visitation.

One of the first settlers on land claims was F. J. Dunbar, of Ohio, who, after an adventurous career in Wisconsin, Iowa, and Colorado, in the last of which states he discovered the Mammoth mine, arrived at Bannack in 1862, and proceeded to Gallatin valley, where he became the owner of over five hundred acres of land. Another agricultural pioneer was a Welshman, named John E. Reese, who also selected a tract in the Gallatin valley fifteen miles north of the town of Bozeman, his nearest neighbor being seven miles away.

In productiveness Montana can hardly be surpassed except for the higher valleys, where the crop is liable to be injured by frost. But in parts not too elevated wheat averages 30 bushels to the acre, and oats 75, the former sometimes reaching 50 bushels, and the latter more than 100. Rye raised by B. F. Hooper of Bowlder valley, in 1868, produced grains one-half larger than the ordinary size, and from seed obtained, as is related, in 1863 from the craw of a migratory bird.

Of 35,000,000 acres of agricultural land in Montana, little more than one tenth was under cultivation in 1889. In that year the number of farms was stated at 5,026, producing from 26,000 acres 770,000 bushels of wheat, and from 85,000 acres some 3,000,000 bushels of oats. More than one half of the total was credited to the valleys of Gallatin and Bitterroot, whose proximity to the more thickly settled portion afforded a ready market.

The most serious drawback to the agricultural settlement of the country and the increase of its population is the monopoly of land by stock-raisers, the owners of large herds acquiring extensive tracts, to the exclusion of farmers. Nevertheless, the acquisition of large areas is now being opposed by the government, and the abundance of water will enable agriculturalists to take up claims in greater number. Yet a large extent of country is occupied by cattlemen, as, for instance, in the region surrounding the

Yellowstone national park, where eight persons control an area large enough to herd 190,000 head. Baron Bonnemain was another large stock-owner, having a range of thirty-two miles. He was born in 1851 at Means, Seine-et-Marne, in France, and after serving under McMahon in the Franco-Prussian war, migrated to New York, and visiting Montana recognized the advantages offered for stock-raising.

No charge being made by the government for the use of government lands, the cost of keeping cattle was trifling. Formerly the herds were permitted to mix promiscuously, being distinguished by their brands. As their number increased, however, some regulations as to the extent of ranges were found necessary. In 1874 the legislature of Montana enacted a law providing that the county commissioners should divide their respective counties into not less than three nor more than ten stock districts, a place being designated in each for the annual or semi-annual rodeo, at which the cattle were mustered, as in Idaho, for the purpose of separating the herds and branding the young with their owners' marks, which were described and recorded in the county register. Notice of a rodeo was to be given thirty days in advance, and no two districts could hold such meetings on the same day. Each district had a particular brand with which estrays were marked. On being claimed by their owners such marks were obliterated. Heavy fines were imposed for branding the property of another with a false mark.

The rodeo is the great event of the year. At the close of winter the proprietors meet and decide upon the rendezvous. A superintendent is chosen, and a number of deputies, to secure the proper execution of details. A large number of persons assemble at these encampments, which are visited by dealers from the east. The proprietors having separated their stock from the general herd, they proceed to brand the young, it being conceded that a calf belongs to the cow which it follows for nutriment. When a proprietor makes a purchase his mark is branded on the opposite side to that on which is the original mark. Whether cattle are sold on the ground or taken to market—usually to Chicago—they are driven to the railroad at some point where conveniences for forwarding stock are provided. In 1885 the Northern Pacific railroad charged $100 a carload of from 16 to 20 animals, which they allowed at certain places to pasture for several hours. The cattle sold are generally beeves, at an average price of $35, and the easy and speedy means of acquiring wealth by this industry is shown by the fact that a properly selected herd of about 900 animals will increase to 20,000 in ten years, exclusive of accidents, losses, and sales of steers. The first to drive a herd to the Union Pacific railroad is said to have been W. H. Raymond, who sent his cattle to the east in 1874.

Blooded horses were introduced into Montana in 1873 by Campbell of Gallatin City, and the breeding of fine animals has received attention since that time. Another profitable industry is that of sheep-raising, for which the higher lands are admirably adapted. In 1883 the sheep in Montana were valued at $1,750,000, the wool clip amounting to at least 3,000,000 pounds. In the same year the number of horses was estimated at about 40,000, worth $2,436,294, and of oxen and other cattle 590,000, valued at $14,809,000.

In Wyoming, though by no means the desert country described by early explorers, the scanty vegetation, the often brick-red color and sandy nature of the soil, and the general dryness, seemed at first to forbid all attempts at agriculture, but this former bed of seas and fresh-water lakes, covered with the detritus of the mountains and the decayed plants of the gradually receding shore, contains all the elements of fertility, and lacks only moisture to quicken it.

An obstacle presents itself also in locusts, or grasshoppers, those pests of all dry and open regions, which, as in Utah and Montana, make their periodical visits. Farmers are learning to entrap them, and in some measure to overcome the evil, yet enough of it remains to cause them no small annoyance. It has, moreover, retarded irrigation, here an indispensable accessory to farming. Of late years, however, the growing demand for home products has led to the organization of irrigation companies, such as the Wyoming Development company, of 1883, which constructed a canal eighty-six miles in length for conveying water from the Laramie river. The channel passed through Blue Grass and Sabille creeks, and involved the tunnelling of a mountain for over half a mile, besides 200 miles of lateral ditches for irrigating 60,000 acres, on which it is estimated that 3,700 families can be supported. The work was completed in 1886 at a cost of nearly $500,000. About the same time T. W. Rutledge and B. Hellman, relaimed 10,000 acres by means of a main ditch twenty-seven miles in length. These tracts were respectively eighty and forty miles northwest of Cheyenne. The value of such undertakings is best shown by the yield obtained from the land thus irrigated, of two and a half tons of hay to the acre, of wheat averaging forty-seven bushels to the acre, of oats weighing fifty-two pounds per bushel, and of potatoes, one of which produced twenty-two hills.

The territory obtained a share of congressional aid for sinking artesian wells, and for the same purpose the local legislature passed a number of well-considered measures, authorizing counties, for instance, to appropriate $3,500 for sinking such wells at any town with a voting population of 400. This body also protested before congress against cattle companies fencing in water upon land to which they had only a partial title. In a few districts, as along the west slope of the Black hills, artificial watering could be dispensed with.

The first farming is ascribed to the Mormons at Fort Supply on Green river, where a party of over fifty settled in 1853. They have since established a number of colonies in Salt river and other valleys. In 1868 land began to be taken up more widely. Beckwith, Quinn, and company then laid claim to 15,000 acres, fifty miles north of Evanston, of which 4,000 were in due time brought under cultivation, chiefly for hay for their cattle. Wind River valley early attracted attention with its dark soil, mild climate, abundance of game, and its frost-clad hills and grassy banks. It had been a favorite camping-ground for trappers as well as natives, and became recognized as the garden of Wyoming.

Fear of Indians, who so long harassed the territory, naturally served to keep back settlers, and even where larger bodies of colonists ventured to advance some distance into the interior, remoteness and lack of communication prevented many from following. The transcontinental railway most unfortunately ran through the least valuable portion of Idaho; yet there were enough of promising tracts and inviting valleys within reach of it which remained neglected, or were used only for grazing. Among the reasons were the ill-repute of the soil, the cost of constructing ditches, and the ready profit of stock-raising and other pursuits. By 1876 only 38,700 acres had been entered for settlement, and though after that date the sales and preëmption increased, yet the census of 1880 reports nearly 2,000 acres as improved, with a wheat crop for the preceeding year of 5;000 bushels. In 1882, when 58,000 acres were sold, the crop had risen to 25,000 bushels of wheat, 47,000 of oats, and 87,000 of potatoes. The arable land was meanwhile estimated at not less than 8,000,000 acres, so that there was ample room for the expansion held forth by recent irrigation enterprises. In the same year about eighteen per cent of the population were engaged in farming, and the value of products per capita was $227, figures considerably below those for California, Oregon, or Colorado. One explanation lies in the inferior class of produce. Owing to elevation and cold only the hardier fruits can be relied upon; but grain will grow at an altitude of 7,000 feet, and root crops are abundant.

The grasses of Wyoming vary little from those of Colorado, but the proportion of pasture-land is even larger, so that it may be called the leading grazing country in the northern half of the United States. S. Aughey, the naturalist, made extensive tours in this region, and found seventy-two different kinds of grasses, a number of which he believed might readily be doubled. He became in 1883 the geologist of the territory, and issued several treatises on its natural history. In the higher western districts shelter and fodder in winter are considered almost indispensable. Hence the cultivation of grasses has assumed wide proportions, and the largest irrigation works so far have been undertaken by stockmen. Wire fencing is also much in use, covering immense tracts, but it has proved objectionable in severe winters, excluding the cattle from sheltered spots. As an instance of the favorable conditions for stock-raising it may be mentioned that a herd of 1,500 Texan cattle brought to Powder river by C. Stoddard in 1879 increased by 1885 to 35,000.

One of the first stock-growers in the territory was J. M. Carey, followed by J. V. Cantless, whose run was on Sand creek. The basis for the Wyoming breed has been Texan stock, drawn partly direct, partly from Colorado and other sections, but large herds have also been brought from Oregon and Nevada, and graded with short-horned Galways and Herefords, the last being the favorites. The first consignment of Herefords was imported in 1878 by A. H. Swan, at a cost of $10,000. The Swan brothers, with G. T. Morgan for manager, established the Wyoming Hereford association, with one of the finest and largest breeding farms in the world, covering 40,000 acres, with numerous windmills and other improvements.

The introduction of sheep aroused no little hostility on the part of cattle-men. The large owners had been crowding out the smaller ones, compelling them to sell, and many of the latter in their turn hastened to buy and fence in land in the water-courses, stocking it with sheep, and so retaliated by causing a lack of water for the others. The first large lot of fine sheep, introduced by A. R. Converse, the founder of several large cattle companies, did not prove remunerative; but since then experience has overcome many obstacles. G. Schnitger experimented largely with Angora goats, and was eminently successful. The Wyoming mohair has greater lustre than the California product and brings five cents more per pound. The climate is particularly well suited for horses, for the dry bracing air promotes lung power, and gives strength to draught animals. Nevertheless the sum invested in them is only one-twentieth of the capital employed in raising horned-cattle.

The number of cattle in Wyoming in 1890 was 1,500,000, and of sheep 1,250,000, representing, together with horses and other stock, capital to the amount of $50,000,000. Nearly all this was in the hands of large companies. Of individual cattle-men there were in 1886 only three whose interests were of importance. The need for irrigation and extensive ranges, with fences and other costly adjuncts, gives a great advantage to joint-stock companies. Among them may be mentioned the Converse Cattle company, with a capital of $1,000,000, owning lands also in Nebraska; the National Cattle company; the Standard Cattle company, which in 1885 had 60,000 head on Little Powder river, Chugwater, and other streams, and with a lease of an immense tract in the Indian territory, and the International, which merged into the Anglo-American Cattle company, capital $800,000, held chiefly by Americans, under the presidency of H. Velrichs, who had served in the legislature.

Most of these companies belong to the Wyoming Stock-growers' association, an organization which has admitted members from Nebraska, Colorado, Kansas, Montana, and even states east and south of the Missouri. It also establishes and sustains the laws which govern stock interests, supporting a police force, with the best detective talent, to suppress the robberies which so widely afflict this business. The inspection of stock for export forms an important part of its labors, and in 1883 nearly 300,000 head were inspected, chiefly at shipping points. The export is largely to England, by way of Superior City, Wisconsin, and other points. It was the intention to forward them by way of Canada, in order to avoid the regions infected by pleuro-pneumonia; but to this the government made objections, as it would conflict with the cattle interests of the dominion.

Among the presidents of the association was J. M. Carey, before mentioned. After a college course in his native state of Delaware he graduated from the law department of the university of Pennsylvania, and then entered the union army in 1861 as lieutenant. He took part in many of the principal battles, attaining by 1864 the rank of brigadier-general. In 1868–9 he performed the duties of assistant secretary of war, and then migrated to Wyoming, where he engaged in stock-raising, in company with his brother. In 1872 he was commissioned associate judge of the supreme court of the United States. The people of Cheyenne testified their esteem by electing him three times their mayor.

As president of the Stock-growers' association he raised its police to great efficiency, under leaders like N. K. Boswell, the discoverer of the celebrated soda lake near the railway line, and famed as a brave and zealous sheriff and marshal. Such care was needful, for the thieves were well organized, with stations extending from Oregon to North park, their headquarters.

Stock-raising on a large scale may have reached its greatest development, but its decline will probably be slow; for farming has many obstacles to encounter, especially in the lack of cheap transportation. The profits of the business are also decreasing under the systematized competition aiso of farmers in general, with attention to cultivated grasses and rotation of crops. This combination of tillage with the raising of a superior breed of cattle will here assist to develop farming to a wider extent than is authorized by the limited home consumption, and will at the same time insure proportionately larger profits.

Within recent years more attention has been paid to irrigation, and though the youngest of all the states, Wyoming now ranks third in area of irrigated land, and second in mileage of irrigating canals. But though rich in agricultural possibilities, stock-raising represented as late as 1890 at least one half of the aggregate wealth of the state. In 1884–5, when the live-stock industry reached its highest development, there were probably 2,000,000 cattle in Wyoming, worth, on an average, $30 per head. In 1890 the number was reduced one fourth, and the price by more than one third. Meanwhile as many as 300,000 had been forwarded in a single year to eastern markets. Wool-growers had been discouraged somewhat by the low prices ruling for this commodity. Horses were steadily improving, both in number and breed, through the importation of thorough and standard bred stock, both for draft and driving purposes.

CHAPTER XXV.

AGRICULTURE—COLORADO, ARIZONA, AND NEW MEXICO.

THE CONTINENTAL DIVIDING RANGE—PARKS OF PARADISE—SOIL AND PRODUCTS—FORESTS—ABSENCE OF MOISTURE—DROUGHTS AND FLOODS—SYSTEM OF IRRIGATION—LAND AND WATER ASSOCIATIONS—CANALS AND DITCHES—HISTORY OF AGRICULTURE—COLONIES—HORTICULTURE—STOCK-RAISING—GRASSES—WOOL-GROWING—STOCK ASSOCIATIONS—MONOPOLY—PUEBLOS OF NEW MEXICO—INFLUX OF MEXICANS AND MORMONS—SOIL AND PRODUCTS—STOCK-RAISING IN ARIZONA—CLIMATE—MEXICAN LAND GRANTS—SUBDIVISION AND IRRIGATION—LAND TITLES.

THROUGH the state of Colorado runs the continental vertebra, here assuming rugged proportions. Nevertheless, on either side of the Rocky mountain range is a large extent of plain, and within the mountains themselves is a series of fertile valleys denominated parks. Walled about with majestic heights, covered with luxuriant grasses, threaded by streams of purest water, and dotted with lakes and groves, they present the aspect of a paradise, beckoning the beholder away from the turmoil and fever of mining camps to Arcadian repose.

The three principal parks lie in an altitude of from 7,500 to 8,900 feet, and vary in length from thirty miles for the north park, to sixty-five, with a breadth of forty-five miles for the middle park. The southernmost, the San Luis, is nearly as large as the others together, while around lie several smaller valleys of great beauty, besides the tracts extending along the rivers in the plains below.

In the eastern lowlands the soil partakes of the Missouri bottom character, notably along the Platte, while that of the uplands consists of a rich, sandy loam. It is marked by a low percentage of organic matter, highly charged with nitrogen, by the large proportion of lime and potash, a peculiar form of phosphates, easily soluble in weak acid and other native properties.

Owing to the lack of sufficient moisture, from its meagre rainfall and strong drainage, the natural products of the country are neither luxuriant nor varied. The first explorers saw little beyond a worthless thorn-apple, small, acid gooseberries, occasionally plums and cherries, with several kinds of currants and berries, the last alone in abundance. Forests cover only one-tenth the area, and the trees are short and branching and of scanty variety; yet they are as valuable for fuel and lumber as those of many of the Mississippi valley states. The willows and cottonwood skirt the numerous small rivers; the pine, fir, aspen, and spruce are found on the slopes to a height of 10,000 or 12,000 feet; beneath, the rolling county is sparsely covered with spreading cedars, and upon the arid mesas of the southeast, and along the western base of the main chain, cacti alone attain considerable proportions amid the stunted vegetation.

Everything betokens the lack of moisture, notwithstanding the numerous streams, fed from the snowbanks which remain on the ranges until late in the spring. The average rainfall is 18.84 inches. The air partakes of the dryness characteristic of mountain regions, the summer heat of the plains being excessive by day, although the nights are cool, owing to the altitude. The temperature rises as high as 99° for considerable periods, and falls in winter at times below zero, presenting an extreme range of over 100°; yet the mean temperature in summer is about 67°, and in winter 32°. In the summer season high winds prevail on the plains, at times carrying suffocating clouds of sand, and in winter the dry, powdered snow is sometimes scattered in the same manner.

The mountains make felt their influence throughout, and through the insufficiency of forests the land is unable to retain its moisture, as revealed in the wide desiccation, and not infrequent droughts and floods. The dry summer of 1863, for instance, when grass shrivelled and cattle died by the hundred, was followed by a severe flood, which swept over the banks of creeks and rivers, carrying away settlements, blotting Denver out of existence, and injured farming lands and orchards over a wide area by prolonged inundation and débris deposits.

The first agriculturalists soon learned that irrigation was indispensable, save in the bottom lands, and that with it the rich and deep soil would produce beyond all expectation. The result was that land claims were so laid out by the first comers as to touch on one side the stream descending from the highlands, and provide facilities for filling the ditches with water. The legislature passed acts to protect the system. So highly did the state appreciate the value of irrigation that in selling state lands in suitable localities the purchasers were required to construct ditches for watering, as well as their own, the alternate unsold sections, thus raising the value of the latter as high as thirty dollars per acre, and adding millions to the worth of the school lands.

As early as 1861 an act provided for the free use of water from the stream bordering a claim, and for the right of constructing ditches to land not situated on its banks. The regulations forbade the waste of water, and when scanty it was to be equitably apportioned under the supervision of commissioners appointed by justices of the peace. Amendments were added with growing experience, and ditches exempted from taxation. The prospects brightened of redeeming so much of the vast districts along both the mountain slopes so far stamped as worthless, under the deprecatory terms of the Great American and other deserts. The importance of this question suggested its formal consideration by representatives from the different states and territories interested. A convention of several states was accordingly held at Denver in October 1873, through the mediation of Governor Elbert. The results were small, except so far as they enlarged men's ideas in the direction of scientific agriculture, and impressed upon the federal government the advisability of assisting to recover from sterility so large a portion of the public domain. In 1879, indeed, the department of agriculture sent J. B. Walker as commissioner to Colorado, to take observations preliminary to a practical test of the value of artesian wells for irrigation, and congress donated funds for borings in different directions.

Unwilling to await the slow action of the authorities, the community took the matter into their own hands, and companies stepped forward to construct ditches for redeeming purchased tracts as well as for selling water to neighbors. Among the first large undertakings of this class were the canals of the Union colony at Greeley and at Evans, both conducting water from the South Platte for six or eight miles. The defect of this and several other early works was too great a fall, causing a too rapid current, destructive to the channel. The undulations of the plains here facilitate irrigation, as well as cultivation. After two or three days of moistening, the land is ready for the plough; and cereals require to be watered only once or twice during the season.

Late enterprises had the advantage of previous experiments. In 1877 English capitalists organized the Colorado Mortgage and Investment company, which also became engaged in irrigation, and assigned to a subordinate association at Fort Collins—the Larimer and Weld Irrigation company—the construction of a canal over fifty miles in length, controlling large tracts of land and water rights. It proved very profitable. Water was sold for two dollars per acre, and subsequently for less, and land bought from the government was raised in value to fifteen dollars per acre. A still longer ditch, the High Line Irrigation canal, was made by the Platte Land company, another foreign organization, for watering the high plains east, southeast, and northwest of Denver. It proved a great task, with wide detours, flumes, and tunnels, and the cost by 1884 had reached $2,500,000. The ditch is 36 feet wide at the bottom, and 7 feet deep for the first 30 miles, and is intended to water 300 square miles of territory. The Northern Colorado Irrigation company completed in 1883 80 miles of main canal, with as much more of lateral branches. It then began another canal of 70 miles, from Pueblo to La Junta. The San Luis Park Irrigation company, of New England capitalists, propose to water 500,000 acres. The Larimer and Weld company undertook to supply land 1,000 feet above the valley of their stream by means of a dam on the north Poudre. In 1883 Pueblo surpassed the other counties, with an irrigated area of 92,400 acres.

In 1890 there were nearly 3,000,000 acres under irrigation in Colorado, with several hundred reservoirs and some 2,000 ditches and canals, having a total mileage of about 5,000. The largest irrigated area was in the San Luis valley, where a single company had in operation more than 300 miles of canal, capable of supplying water sufficient for a quarter of a million acres of land.

The first agriculturalists appear to have been the Mexican proprietors of the post El Pueblo, erected for the protection of the farms here opened in the thirties to supply the trading stations. Irrigation was used, but for various reasons the enterprise did not flourish. In this vicinity halted a number of gold-seekers in 1858–9, judging that when corn was worth from five to fifteen cents a pound farming must be as profitable as mining, and far less laborious and precarious. They conveyed water from Fontaine-qui-

Bouille, and a fine field of corn rewarded their efforts. Then chanced to pass a party of disappointed miners returning to Missouri, and foraged their jaded beasts upon the juicy stalks. The farmers remonstrated, only to meet with insolent rebuffs from the more numerous Missourians. Watching their opportunity the former drove the animals into a corral, and there intrenched themselves, demanding their indemnity. A struggle ensued in which several of the assailants were killed. The rest thereupon yielded to the victorious farmers, paid for the damage and departed.

In 1859 farming was undertaken by a number of the inflowing fortune-hunters round the different camps and towns then founded. In 1861 began the survey of the public lands under the supervision of F. M. Case, surveyor-general, first in the Platte valley, where the most available tracts were taken up within the year, as well as those on the Fontaine-qui-Bouille. The Huérfano and Arkansas rivers were credited with the most extensive grain-growing farms. On the Rio Grande and its tributaries were numerous Mexican agriculturists and stock-raisers. During the decade several land offices were opened to meet the demand for farming and mining claims.

In due time the glowing accounts of natural beauties and productiveness brought in colonies, partly under the auspices of irrigation companies, who sought to obtain customers for their land and water. In 1869 threescore members of the union colony were sent under the auspices of Horace Greeley, of the New York *Tribune*, and founded the town of Greeley, in Weld county. They purchased at first 12,000 acres, and made arrangements for the acquisition from government and the railway company of 100,000 acres more, at from $3 to $4 per acre. The town was laid out at the delta formed by the junction of Cache-à-la Poudre and Platte, and the adjacent land divided into lots of from five to twenty acres according to distance from the town. Irrigation canals were constructed, artificial lakes and parks provided, and funds set aside for fencing and public buildings. Beyond this the colony was not coöperative. Within two years the town contained 350 edifices, seventeen stores and a newspaper.

This suceess encouraged several other associations to follow, among them the Southwestern or Tennessee colony, gathered from different states, which purchased a large tract in the Platte bottom, needing little irrigation, and founded Green City, in honor of D. S. Green of Denver. The settlements fostered by irrigation companies had either perpetual water-rights or could buy water at a fixed rate.

So rapid was the extension of farming that by 1866 Colorado became agriculturally self-supporting. In the following year she had a surplus for export to Montana and with which to supply the government posts. Prices fell to eastern rates, to which hitherto from six to ten cents a pound had been added for freight. The confidence thus imparted to agriculture tended to give stability to the country, and permanence to other industries. In 1866 it was estimated that 100,000 acres were under cultivation, and that one-half the population were directly or indirectly engaged in farming pursuits. The arable land was then placed at 4,000,000 acres; but soon afterward this estimate was more than doubled, with greater experience as to the area capable of irrigation.

In 1868 the production was assumed to be 1,000,000 bushels of corn, 500,000 of wheat, and 500,000 of barley, oats and vegetables. Cache-à-la Poudre valley produced nearly 20,000 pounds of butter, a quantity excelled in the main valley above, toward Denver. Two years later the land department placed the agricultural production at $3,500,000, while the bullion output then stood at $4,000,000 In 1881 the five leading grain counties, Arapahoe, Boulder, Jefferson, Larimer, and Weld, yielded 980,000 bushels of wheat, and in the following year 1,158,000 bushels, besides other grain. In that year the total crop of the state was valued at $9,000,000, one-third of which was from four counties Irrigation was rapidly expanding the area. In 1883 over 400,000 acres were artificially watered. The production of wheat from 67,000 acres was 1,400,000 bushels; of oats from 33,600 acres, 925,000 bushels; corn, 21,700 acres, 356,000 bushels; barley, 6,200 acres, 113,000 bushels; rye. 1,600 acres, 20,000 bushels; sorghum, 67 acres, from which 2,360 gallons of syrup were obtained ; potatoes 1,000,000 bushels.

In wheat Boulder county took the lead in 1883, followed by San Miguel, Larimer, and Jefferson ; in corn Weld ranked first, Boulder and Pueblo being second and third. Las Animas produced 150,000 bushels of wheat, 200,000 of oats and 110,000 of corn. Pueblo had over 92,000 acres under irrigation, in which regard it surpassed all other counties. Weld yielded a crop worth nearly $1,300,000, of which $370,000 was represented by wheat.

Fruit was raised by the Mexicans in San Luis park, before the entry of settlers from the United States. Apples, pears, peaches and grapes were cultivated, and from this source Arkansas river farmers provided themselves in part. On the Platte the same orchard fruits were raised from the seed, which flourished awhile and then perished. The cause was discovered to be the desiccation of the wood by the sunshine of the winter season, which could be checked by autumn irrigation. Thereupon set in a revival of fruit culture, with a steady improvement in quantity and quality. Among the first to engage in it were Joseph Wolff of Boulder, whose experiments proved costly, yet valuable; J. W. Parker of Cache-à-la Poudre valley ; J. G. Flory of St Vrain valley ; A. Rudd and W. A. Helen of Cañon City, and J. Frazier in Arkansas valley. Mesa county has extensive nurseries and bids fair to excel with orchards. Plums and cherries of good flavor are found in a wild state, also currants in several varieties, and raspberries, strawberries, and whortleberries in great abundance. The gooseberry is small and acid. In 1865 strawberries began to be cultivated. Small fruits thrive where the soil is moist at certain seasons. In 1882 fully 2,500 acres were in orchards, and the fruit was valued at $1,250,000.

The legislature of 1883 passed an act to encourage horticulture and forestry, and to establish a state bureau of the former, with an annual appropriation of $1,000. D. S. Grimes was made president of the state horticultural society. An agricultural society, organized as early as 1863, had likewise been granted an annual allowance for prizes. In 1877 an act was passed for the erection of an agricultural college, to be sustained by a direct tax of one-tenth of a mill on every dollar of real and personal property in the state, the management and the control of funds being vested in the state board of agriculture created the same year. It was located at Fort Collins, Larimer county, and opened in 1879, with free tuition. Institutes are held at different points during the winter, for the benefit of farmers, and the board publishes annual reports on the results of experiments and other topics.

The grange movement in the eastern states found response in Colorado, and granges were formed in 1874 and subsequently throughout the farming region, with halls for regular meetings. A country in which irrigation and other enterprises have given so much power to monopolies seemed the proper field for such an agitation, but the early enthusiasm for the cause has not been sustained, and the commercial agency and flouring-mill founded at Denver on coöperative principles failed for want of harmony and cohesion.

So far stock-raising has been the leading industry, next to mining, partly owing to its facilities for finding wide markets, partly to the fine grazing lands to be met with in all directions, together with the numerous streams. The principal grasses are the gamma and bunch species, the former distinguishable by the small seed growing on one side, at right angles to the stalk. Over a hundred varieties of grasses with lateral seeds were exhibited at Denver in 1884. The gamma is usually only a few inches high, but with irrigation it attains a height of two feet, and provides better feed than any native grass known. It grows near the mountains; above it on the slopes is the bunch-grass, and below on the plains the buffalo-grass. The snow seldom remains long enough to do harm, and cattle thrive so well on these grasses as to suffer little from a week of starvation. Should the snowfall threaten to continue the animals stampede to sheltered valleys, so that, with advantageous climate and brute sagacity, losses are rare. Of late alfalfa is growing in favor in the irrigated districts

The Mexicans introduced cattle from New Mexico at an early date, and in 1847 St Vrain and Bent brought several thousand head from that country and Texas into the Arkansas valley. Subsequently Maxwell and others established cattle ranchos on the streams flowing from Sierra Mojada and on the upper Las Animas. With the influx of miners ranges were occupied in different directions. The nutritive quality of the grasses was strikingly demonstrated in 1859, when A. J. Williams recovered in sleek and fat condition eighteen of his oxen, abandoned the previous year upon an island in the Platte, near Fort Lupton, for lack of fodder. The lesson was not lost, for a few years later he brought 1,500 Mexican cattle to the Platte, and since then importation for fattening became a regular business, latterly on a large scale. In the spring of 1884 the cattle in the state numbered about 1,000,000.

As the industry acquired proportions, laws were issued for the incorporation of companies, for branding, herding, and protecting from disease, and for creating a state board of inspectors. A commissioner was authorized to attend the annual round-ups, and seize all unbranded cattle for the benefit of the common school fund.

Sheep-raising dates properly from 1871, when sheep began to be introduced in large numbers. Cattle-men at first raised strenuous objections, because of the injury inflicted by the close grazing of the sheep, and forcible measures were even adopted to drive out the obnoxious stock, but the legislature interposed with laws for the protection of both classes. The increase of sheep was thereafter rapid, so much so that they numbered 1,500,000 in the spring of 1884, and the industry rose to the third position in the state. The yearly clip exceeds 7,000,000 pounds, valued at $1,500,000. Lambs one year old yield four pounds of wool, and ewes five to six pounds. The flocks are mainly Mexican, improved with thoroughbred merino rams. Snowstorms and cold, spring rains, as more injurious to sheep than cattle, menace the business to some extent, but apart from this drawback it prospers, and the calculation has been that money invested therein should be doubled in three years.

These two classes of stock have so absorbed attention as almost to exclude other descriptions. Swine should thrive well on the bottom lands, and the success with sheep led to experiments with cashmere and angora goats. Nevertheless the small stock, outside of sheep, was in 1886 placed at only 25,000. Of horses and mules there were 100,000, used largely for mountain traffic, yet not in much favor with stock-farmers, owing to the greater trouble and expense of raising them.

Of the great stock counties in the north, Arapahoe claimed in 1884 animals to the value of $1,500,000. In the south Pueblo had 50,000 cattle and 75,000 sheep, and Las Animas 60,000 cattle and 143,000 sheep. La Plata possessed a similar number of cattle, but only 20,000 sheep. The livestock in Sagnache was valued at $500,000, and in Rio Grande at about the same figure. There are two stock associations, one at Denver, the other at Pueblo, each holding annual meetings for the discussion of interesting subjects.

An alarming feature in the stock business is the acquisition of immense tracts of country, with springs and streams, by companies or individuals, as, for instance, the possession of many thousands of acres of rich bottom land and forty miles of water front on the Arkansas river by one man, J. W. Prowers. The Prairie Cattle company have over $3,000,000 invested in cattle, and control many miles of river bank, and many hundred thousand acres of fenced pasture. The Colorado Cattle company, composed of eastern capitalists, secured 81,000 acres near Pueblo from the government. In the south Bent, Las Animas, and Elbert counties are, like Pueblo, largely absorbed by large holders. In northern Colorado, Weld and Arapahoe counties are in a similar position. Spanish grants were in early days so extensive as well as numerous, as to seriously obstruct its settlement. Ex-governor Gilpin obtained the possession of a tract in Sagnache county, a part of which he sold, and Vigil and St Vrain claimed all the region south of the Arkansas river and east of the mountains, except the Nolan grant, a tract fifteen miles by forty. The United States recognized the concession, but reduced the larger one to eleven square leagues each. A judicious taxation should be added to the rising prices for land, to promote the subdivision of grants, and this will doubtless come with the growth of settlements.

In Nuevo Mexico, which formerly included the present territory of Arizona, agriculture had been considerably developed by certain tribes of the aboriginal inhabitants long before the arrival of the Spaniards. The physical character of the country, the inferior quality of by far the greater portion of the soil, and its niggardly contributions to the support of the primitive races, while relying on the chase and spontaneous productions for a livelihood, were the causal factors of this divergence from barbaric life. Hunger sharpened the wits of the more intelligent tribes, and the art of tilling the ground in rude fashion was discovered. Thereafter a progressive movement set in, the fertile valleys and borders of the main rivers and their tributaries were gradually occupied by an agricultural people, and permanently settled communities were in time established. But the results of their industry exposed them to depredations inflicted by other tribes which retained their wild nomadic habits of life. This evil stimulated their inventive faculty, and means of defense were devised, architecture was developed, and on well chosen sites huge structures were erected, which were impregnable except to such assailants as the Spaniards. These were the community dwellings of the Pueblos.

Their pursuits and settled mode of life and perhaps still more so their diet had a softening and civilizing effect upon this people. Previous to the arrival of Spanish settlers among them, they possessed no domesticated animals, and flesh formed but an insignificant portion of their food, except, perhaps, in the eastern portion of Nuevo Mexico, where for the first time the Spaniards saw the American bison. Mainly sustained by corn and fruits, they became practically vegetarians, and with the lapse of generations lost their fierce and bloodthirsty propensities, developing into a peaceful, industrious, and independent people. Thus steadily progressing, they entered the gateway opening to civilization, as is attested by existing evidences of their engineering skill, in the construction of irrigation canals and ditches, by the ruins of their immense domiciliary structures, and by relics of implements and household utensils.

With the introduction of cattle, sheep, goats. and horses the Pueblos in time became possessed of flocks and herds, and their diet underwent some modification. Poultry were introduced and are still reared, and corn, wheat, beans, and a great variety of fruits are cultivated.

During the period from 1790 to 1815, when the Apaches were generally at peace, many flourishing farms were cultivated by Mexican settlers in the southern regions, but with the exception of this portion Arizona was regarded by Anglo-Americans, on its acquisition by the United States, as a barren waste, unfit for agriculture. When, however, rich mines were discovered, the adventurers began to till the soil in favorable spots, and found it to be exceedingly productive. Then came the Mormons, who were agricultural colonists, and thenceforth progress has been constant. The farming area is limited by the water supply, but is capable of being largely extended by systems of artesian wells and irrigation works. The soil is a sandy loam, and is capable of producing all the cereals, vegetables, and fruits of temperate and semi-tropical climes. Oranges, grapes, olives, and the sugar-cane thrive exceedingly, while the Colorado bottoms of Yuma and Mohave counties, when reclaimed, will furnish large supplies of sugar, rice, tobacco, and cotton. Though a large proportion of the agricultural area is included in Indian reservations and the alternate sections granted to railroad companies, a large quantity, about 8,000,000 acres, is still government land, and when settled will support a very considerable population. From 40,000 acres in 1880 the area under cultivation increased to 300,000 in 1890, of which about 10,000 were in orchards and vineyards. Of cereals the harvest for the latter year was estimated at 25,000 tons, with alfalfa maturing three or four crops annually, and yielding from six to ten tons to the acre.

With regard to stock-raising, the hostilities of Indians for many years made this business unprofitable, but since their suppression large tracts of land have supplied a most nutritious pasturage for cattle, horses, and sheep, the number of cattle in 1890 being estimated at about 650,000. More than half of Arizona is available as grazing land, the gramma, bunch, and mesquite grasses growing thereon in abundance. Moreover, the climate seems to be peculiarly adapted to this industry, and the different diseases to which cattle are subject are almost unknown, especially those that are epidemic. Most of the best ranges, with natural water supplies, have been already taken up, but the fact that water can be everywhere obtained by sinking wells will cause the speedy occupation of the less favorable areas.

Troubles resulting from Mexican land grants in Arizona are fewer and on a smaller scale than those that have arisen in California, but they are similar in nature, the owners having no real protection against squatters.

What has been said about the agricultural pursuits of the primitive races of Arizona applies generally to the same industry in New Mexico. Irrigation was mainly relied upon for the production of crops in the north, the same cereals, a little cotton, and an inferior species of tobacco plant being principally cultivated. In the southern portion, after settlement by the Spaniards, fruit orchards and vineyards were planted, while sheep were raised in large numbers. Horses and cattle were less profitable, owing to the depredations committed by the Indians. During the period from 1850 to 1860 the number of farms increased, the increase being due to the occupation of grazing lands. But agricultural progress has been small compared with that of other states and territories, the farming area being much smaller in proportion, and little effort having been made to augment and economize the water supply. All the valley lands, with irrigation properly applied, would yield excellent crops, and offer the prospect of a greatly enlarged production. With the adjustment of land claims and the influx of energetic settlers of the Anglo-American race, this industry is capable of much wider development. In 1882 the total product of 135,000 acres then under cultivation was valued at $2,716,682, of which maize and wheat represented in almost equal proportions about $2,200,000, with a respective yield of 965,000 and 767,000 bushels, while of hay the crop was 13,000 tons, worth more than $230,000.

The mountainous character of a large portion of the country renders the land unfit for farming, but such tracts, together with dry mesas of great extent, are excellent for grazing purposes, rich native grasses being produced in abundance. Stock-raising, therefore, has surpassed agriculture, and is the leading industry, except perhaps mining. Nevertheless, it is cramped by the land laws, which prevent areas which are useless for tillage being sold in sufficiently large tracts for grazing purposes. The occupancy of a few homesteads around a spring gives to each owner control over a large range, and it would be beneficial to New Mexico if the government would permit the purchase of grazing tracts, adequate in size for stock-raising on a more extensive scale. In 1882 the total value of livestock was estimated at about $9,000,000, the number of horses being nearly 17,000, of mules over 10,000, of milch cows nearly 16,000, and of oxen and other cattle 375,000.

As New Mexico had been a settled province for more than two hundred years before its acquisition by the United States, nearly all the lands favorable to agriculture had long passed into private ownership under Spanish and Mexican grants, whose proprietors were also protected in their possession by the treaty of Guadalupe Hidalgo in 1848. In all the territories obtained under that treaty by the United States, the private claims derived from Mexico have given rise to much confusion and litigation, owing to want of formality with regard to title papers, and to vagueness respecting boundaries. In California, whither a tide of immigration at once set in, the original occupants were exposed to much trouble, and in some cases to ruinous losses, by squatters settling upon their lands. This was not the case in New Mexico, owing to the fact that until recent years there was little or no immigration, and no influx of land speculators to stir up controversies Nevertheless, the legality of titles presented difficulties with regard to proof, owing to the greater number of grants, to a complication of transfers and subdivisions, rendered still more difficult of solution through the necessary documents having been issued by different national, provincial, and local officials, and lastly, to the incompleteness of archives. In the absence of immigration, which precluded any conflict of interests, the government at Washington was slow in causing a survey to be made of the public lands in New Mexico. By a congressional act of July 22, 1854, the operation of the land laws was extended over the territory, and every citizen residing therein before 1853, or settling there before 1858, became entitled to 160 acres after four years' occupation. The act also provided for the appointment of a surveyor-general, and in April 1855 the survey was commenced, though down to 1863 only a very few donation claims had been patented, while the total area surveyed was no more than 2,293,142 acres out of the 77,568,640 acres forming the area of the territory.

Equally dilatory and even more reprehensible was the action of the government in settling private and Indian claims. In 1854 the surveyor-general was instructed to investigate town and private claims, and report them to congress, but was left with clerical assistance and appropriations, entirely inadequate to the task, considering their number and complicated condition. He repeatedly represented his inability to perform the work satisfactorily, and urged that a commission should be appointed, but nothing was done to facilitate matters. One of the difficulties encountered was the unwillingness on the part of the inhabitants of New Mexico to present their titles, partly owing to timidity arising from ignorance, and partly to a feeling of security through long tenure; and when, in 1862, a law was passed, requiring that the claimants should pay all expenses of investigation and survey, presentment temporarily ceased. Down to 1862-3 there had been examined forty-eight claims, including all classes, and thirty-eight had been approved by congress, of which seventeen were Indian pueblo claims, containing 1,092,266 acres. As matters were allowed to drift along under this unsatisfactory system, it is not strange that fraud should have been attempted. After 1874 it began to be discovered that many spurious claims had passed investigation and been approved. No less than twenty-three had been reëxamined and rejected, and further scrutiny will probably expose further deceptions of a similar nature. The cause of all this trouble was the negligence of the government to confirm and survey the claims of land-owners as speedily as possible, in accordance with the treaty of 1848. The titles which were valid with prompt attention might have been settled by 1864, before immigration had begun and fraudulent practices were introduced.

Of late the industrial development of New Mexico has been largely in the direction of stock-raising and horticulture. Until 1880 few cattle were raised, and those of inferior grade. In 1890 vast herds of superior breeds were depastured, with shipments of beef cattle for the spring of that year of 150.000 head. Fruit-trees of many varieties have been planted, and thus far with satisfactory results both as to quantity and quality of yield, the almost perpetual sunshine of this region imparting a richness of flavor that is not excelled even by the products of California orchards.

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